U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office

SEARCH REQUEST FORM

Date: Pl	one:		Art Unit:	
Soorah Tania				
Search Topic: Please write a detailed statement of search topic				
erms that may have a special meaning. Give ex lease attach a copy of the sequence. You may i	amples or relevent cit nelude a copy of the b	ations, authors, key roadest and/or mos	words, etc., if known. t relevent claim(s).	For sequences,
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umber of Searches:umber of Databases:		A.A. Sequence	SI	

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April 8, 2004, 17:03:02; Search time 17:8804 Seconds (without alignments) 1264.231 Million cell updates/sec
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1242
1 MIVLAPAMSPITYLLLLLL......RPGEQVPPVFSPQDLLLVEH 235
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GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
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Maximum Match 100%
Listing first 45 summaries
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

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NO.	core	Match	Length	DB	Ω	Descript
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7	864.5	69.6	245	7	843293	FLT3/FL
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4	768.5	61.9	231	7	A49265	. £1t3/£1]
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œ	92		661	Н	TNBE12	74K alpl

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D40829	JQ1484	T06479	T23837	C75460	S13423	T13593	T50995	B48232	A48232	A12016	S15591	EHHO	JW0047	T49482	T13592
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512	513	106	854	485	488		1119	196	209	294	388	428	636	1176	1306
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ALIGNMENTS

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A; Residues: 1-163, 0,165, 'HYAG' < RES>
A; Accession: 149346
A; Cubeque: prop. DNA
A; Residues: 1-197, 'L', 198-231 < RES>
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A; Residues: 1-197, 'L', 199-107, NID; g1072039; PIDN:AAA90951.1; PID; g1072040
A; Residues: 1-197, 'L', 198-231 (RES>
A; Cross-references: ReBL:U29875; NID; g1072039; PIDN:AAA90951.1; PID; g1072040
A; Residues: 1-197, 'L', 198-231 (RES)
A; Cross-references: Reliant G; Rambell, D.; McClanahan, T.; Zurawski, S.; Bazan, J.F.; Rielt, A.; Muench, M.; Kelner, G.; Namikawa, R.; Rennick, D.; Roncarolo, M.G.; Zlotnik, Nature 368, 643-648, 199541, Receptor tyrosine kinase regulates growth of haematopoiet A; Reference number: S43290; MUID:94195428; PMID:8145851
                                                                                                                                                                                                                                                                                                                                                                                             fli3/flk-2 ligand precursor - mouse
C;Species: Mus musculus (house mouse)
C;Species: Mus musculus (house mouse)
C;Date: 13-Jan-1995 #sequence_revision 13-Jan-1995 #text_change 08-Oct-1999
C;Accession: A49265; 149347; 149346; S43290
R;Lyman, S.D.; James, L.; Vanden Bos, T.; de Vries, P.; Brasel, K.; Gliniak, B.; Hollir, D.; Williams, D.E.; Beckmann, M.P.
Cell 75, 1157-1167, 1993
A;Title: Molecular cloning of a ligand for the flt3/flk-2 tyrosine kinase receptor: a FA;Reference number: A49265; MUID:94084791; PMID:7505204
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A.Molecule type: mRNA
A.Residues: 1-231 <LYM-
A.Residues: 1-231 <LYM-
A.Residues: 1-231 <LYM-
A.Cross-references: GB:L23636; NID:g439441; PIDN:AAA39436.1; PID:g439442
R.Lyman, S.D.; Stocking, K.; Davison, B.; Fletcher, F.; Johnson, L.; Escobar, Onogene 11, 1165-1172, 1995
A.Fitle: Structural analysis of human and murine flt3 ligand genomic loci.
A.Reference number: 139075; MUID:96032581; PMID:7566977
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                                                                                              ASNLODEELCGGLWRLVLAQRHWERLKTVAGSKWQGLLERVNTEIHFVTKCAFQPPPSCL
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                                                              ASNIQDEELCGGLWRLVLAQRWMERLKTVAGSKMQGLLERVNTEIHFVTKCAFQPPPSCL
MIVLAPAWSPTTYLLILLLISSGLSGTQDCSFQHSPISSDFAVKIRELSDYLLQDYPVTV
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A;Molecule type: mRNA
A;Rosidues: 1-197, '1,'198-231 <HAN>
A;Experimental source: clone T110
A;Experimental source: clone T10
A;Note: the sequence from Fig. 2c is inconsistent with that from Fig.
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ilarity 70.3%; Pred. No. 1.7e-58;
Conservative 17; Mismatches 43;
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A;Introns: 11/3; 49/3; 67/3; 115/3; 164/1; 224/3
C;Keywords: transmembrane protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
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C;Species: Homo sapiens (man)
C;Date: 20-Oct-1994 #sequence_revision 10-Nov-1995 #text_change 17-Mar-1999
C;Date: 20-Oct-1994 #sequence_revision 10-Nov-1995 #text_change 17-Mar-1999
C;Date: 20-Oct-1994 #sequence_revision 10-Nov-1995 #text_change 17-Mar-1999
B;Hannum, C; Culpepper, J; Campbell, D; McClanahan, T; Zurawski, S; Bazan, J.F.; Ka felt, A; Muench, M; Kelner, G; Namikawa, R; Rennick, D; Roncarolo, M.G.; Zlotnik, A Nature 368, 643-648, 1994
A;Title: Ligand for FLT3/FLK2 receptor tyrosine kinase regulates growth of haematopoieti A;Reference number: S43293
A;Reference number: S43293
A;Reterence number: S43290; MUID:94195428; PMID:8145851
A;Recession: S43293
A;Recession: S43293
A;Rocession: S43293
A;Rocession: Late All A;Residues: 1-245 cHAN>
A;Residues: 1-245 cHAN>
A;Residues: 1-245 cHAN>
A;Residues: Lhe authors translated the codon AGT for residue 25 as Met
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C;Species: Homo sapiens (man)
C;Species: Pomo sapiens (man)
C;Species: D-May-1998 #sequence_revision 29-May-1998 #text_change 21-Jul-2000
C;Accession: I39076
R;Dyman, S.D.; Stocking, K.; Davison, B.; Fletcher, F.; Johnson, L.; Escobar, Oncogene 11, 1165-1172, 1995
A;Title: Structural analysis of human and murine flt3 ligand genomic loci.
A;Reference number: I39075; MUID:96032581; PMID:7566977
A;Accession: I39076
A;Accession: I39076
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C;Genetics:
A;Introns: 11/3; 48/3; 66/3; 114/3; 161/1
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      121 RFVQTNISRLLQETSEQLVALKPWITRQNFSRCLELQCQPDSSTLPPPWSPRPLEATAPT 180
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PIT3/FLK2 ligand (clone S109) - human
PIT3/FLK2 ligand (clone S109) - human
C.Species: Homo sapiens (man)
C.Date: 20-Oct-1994 #sequence_revision 10-Nov-1995 #text_change 17-Mar-1999
C.Date: 20-Oct-1994 #sequence_revision 10-Nov-1995 #text_change 17-Mar-1999
C.Accession: S43293
C.Accession: S43293
C.Accession: G.; Campbell, D.; McClanahan, T.; Zurawski, S.; Ba:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61 ASNLODEELCGGLWRLVLAQRWMERLKTVAGSKWQGLLERVNTEIHFVTKCAFQPPPSCL
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Best Local Similarity 100.0%; Pred. No: 3.2e-64;
Matches 160; Conservative 0; Mismatches 0;
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119 120 177 180

178 APTAPQPP--LLLLLLLPVGLLLLAAAWCLHWQRTRRRTPRFGEQVPPVPSP 227

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GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
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OM protein - protein search, using sw model

April 8, 2004, 16:59:26; Search time 12.7717 Seconds (without alignments) 958.091 Million cell updates/sec Run on:

Title: Perfect score: Sequence:

US-08-994-468-6 1242 1 MIVLAPAMSPITYLLLILLL......RPGEQVPPVPSPQDLLLVEH 235

BLOSUM62 Gapop 10.0 , Gapext 0.5

Scoring table:

141681 seqs, 52070155 residues Searched:

Total number of hits satisfying chosen parameters:

141681

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

SwissProt_42:* Database :

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

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80	80	80	80	80	79.5	79.5	79	78.5	78.5	78.5	78.5
34	3	36	37	38	ო	40	41	42	43	44	45

ALIGNMENTS

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                                                            This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its most by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (see http://www.isb-sib.ch/announce) or send an email to license@isb-sib.ch).
                                                                                                                                                                                             EMBL: U04866; AAA199991; ...

REMBL: U03858; AAA19625.1; ...

REMBL: U03858; AAA19625.1; ...

REMBL: U29874; AAA30949.1; ...

REMBL: U29874; AAA30950.1; ...

REMBL: U29874; AAA30950.1; ...

REMBL: U29874; AAA30950.1; ...

REMBL: U39876; ELT3106.

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N-LINKED (GLCNAC. . .) (POTENTIAL).
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Best Local Similarity 100.0%; Pred. No. 4e-96;
Matches 235; Conservative 0; Mismatches 0; Indels 0
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                Name=2; Synonyms=Soluble;
IsoId=P49771-2; Sequence=VSP_004251, VSP_004252;
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Missing (in isoform 2)
/FTId=VSP 004252.
G -> A (IN REF. 1).
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IsoId=P49771-1; Sequence=Displayed;
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MEDLINE-501/J;
MEDLINE-54084791; PubMed=7505204;
Lyman S.D., James L., Vanden Bos T., Devries P., Brasel K.,
Lyman S.D., James L., Vanden Bos T., Devries P., Brasel K.,
Gliniak B., Hollingsworth L.T., Picha K.S., McKenna H.J.,
Splett R.R., Fletcher F.A., Maraskovsky E., Farrah T.,
Foxworthe D., Williams D.E., Beckmann M.P.;
"Molecular cloning of a ligand for the flt3/flk-2 tyrosine kinase
"molecular cloning of a ligand for the flt3/flk-2 tyrosine kinase
Cell 75:1157-1167(1993).
                                                                                                                                                                                                                                                                                                                                                               121 REVOTNISRLLOBISEQLVALKEWITRONFSRCLELOCOPDSSTLEPEWSPRPLEATAPT
                                                                                                                                                                                                                                                                                                                                                                                                                          61 ASNIQDEELCGGLWRIVLAQRWMERLKTVAGSKMQGLLERVNTEIHFVTKCAFQPPPSCL
                                                                                                                                                                     61 ASNLODEELCGGLWRLVLAQRWMERLKTVAGSKWQGLLERVNTEIHFVTKCAFQPPPSCL
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MEDLINE=96032581; PubMed=7566977;
Lyman S.D., Stocking K., Davison B., Fletcher F., Johnson L.,
Escobar S.,
Structural analysis of human and murine flt3 ligand genomic loci.";
Oncogene 11:1165-1172(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        murine
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               P49772, 06408; Johnson, Pri, 22, Mr. P49772, 06408; Johnson, P49772, 06408; Johnson, P49772, 06408; Johnson, P49772, 06408; Johnson, P49772, 01-0CT-1996 (Rel. 34, Last annotation update) 10-0CT-2003 (Rel. 42, Last annotation update) 2L cytokine precursor (Fms-related tyrosine kinase 3 ligand) (Flt3 Ligand) (Flt31. Ptr31. P
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MEDLINE=94195428; PubMed=8145851;
Hannum C., Culpepper J., Campbell D., McClanahan T., Zurawski S., Bazan J.F., Kastelin R., Hudak S., Magner J., Mattson J., Lub J., Muench M., Kelner G., Namikawa R., Rennick D., Roncarolo M.G., Muench M., Rosnet O., Dubreull P., Birnbaum D., Lee F., "Ligand for FLT3/FLK2 receptor tyrosine kinase regulates growth of haematopoletic stem cells and is encoded by variant RNAS.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A., AND ALTERNATIVE SPLICING.
MEDLINE=95124710; PubMed=7824267;
Myman S.D., James L., Escobar S., Downey H., de Vries P.,
Lyman S.D., Stocking K., Beckmann M.P., Copeland N.G.,
Cleveland L.S.,
Tidentification of soluble and membrane-bound isoforms of
filentification of soluble and membrane-bound isoforms of
filt3 ligand generated by alternative splicing of mRNAs.";
Oncogene 10:149-157(1995).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DSSTLLPPRSPIALEATELPEPRPRQLLLLLLLLPLTUVL
LAAAWGLRWQRARRRGELHPGVPLPSHP -> GNGGPRAQH
HGATRLTATALLTVCPGLLLPLVGTSHMPFLPYFLSFLSSF
Submitted (APR-1996) to the EWBL/GenBank/DDBJ databases.
-!- FUNCTION: Stimulates the proliferation of early hematopoietic cells. Synergizes well with a number of other colony stimulating factors and interleukins.
-!- SUBGNIT: Homodimer (soluble isoform) (By similarity).
-!- SUBCELLUIAR LOCATION: Type I membrane protein. Two soluble isoforms are also produced by alternative splicing. One of which, isoform 3/E6, is biologically active, while the other, isoform 4/E6Deltal6, is inactive.
-!- ALTERNATIVE PRODUCTS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /FTId=VSP_004255.
VQCQP -> GLIMQARLTLNSKQSSCLSVLSAGIT (in
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MGD; MGI:95560; Flt31.

InterPro; IPR04213; Flt3 lig.

Pfam; PF02947; flt3 lig. 1.

Cytokine; Glycoprotein; Transmembrane; Alternative splicing; Signal.

SIGNAL 1 26
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CYTOPLASMIC (POTENTIAL).

BY SIMILARITY.

BY SIMILARITY.

BY SIMILARITY.

N-LINKED (GLCNAC. .) (POTENTIAL).

N-LINKED (GLCNAC. ..) (POTENTIAL).
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/FTIG=VSP_004253.
DSSTLL -> GSHYAG (in isoform
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61.8%; "Score 768; DB 1; Length 23; 70.0%; Pred. No. 8.6e-57; ive 17; Mismatches 43; Indels
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EXTRACELLULAR (POTENTIAL)
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/PTId=VSP 004254.
/PTId=VSP 004255.
                                                                                                                                                   Event=Alternative splicing; Named isoforms=4;
Name=1; Synonym8=6C;
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MISSING (IN REF. 2)
                                                                                                                                                                                               Name=2; Synonyms=5H;
IsoId=849772-2; Sequence=VSP_004253;
Name=3; Synonyms=E6;
IsoId=849772-3; Sequence=VSP_004254, Name=4; Synonyms=E6Delta16;
                                                                                                                                                                                                                                                                       IsoId=P49772-4; Sequence=VSP_004256;
                                                                                                                                                                                   IsoId=P49772-1; Sequence=Displayed;
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EMBL, 123636; AAA39436.1;
EMBL, 1028975; AAA30951.1;
EMBL, 376459; AAB33069.1;
EMBL, S76459; AAB33070.1;
EMBL, S76461; AAB33070.1;
EMBL, 144024; AAA93307.1;
EMBL, 144024; AAA93306.1;
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198
232 AA;
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                                                       60 VASNLQDEELCGGLWRLVLAQRWMERLKTVAGSKMQGLLERVNTEIHFVTKCAFQPPPSC
                                                                         61 VAVNLQDBKHCKALMSLFLAQRMIEQLKTVAGSKMQTLLEDVNTEIHFVTSCTFQPLPEC
                                                                                                                           120 LRFVQTNISRLLQETSEQLVALKPWITR - - QNFSRCLELQCQPDSSTLPPPWSPRPLEAT
                                                                                                                                                                                              227
                                                                                                                                                                                                                 178 APTAPOPP---LILLLILLPVGLLLLAAAWCLHWORTRRRTPRPGEQVPPVPSP
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
MEDLINE=86306657; PubMed=3018124;
Davison A.J., Scott J.E.;
J. Copplete DNA sequence of varicella-zoster virus.";
J. Gen. Virol. 67:1759-1816(1986).
-i- FUNCTION: Modulate alpha trans-inducing factor-dependent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 7.4%; Score 92; DB 1; Length 661; 6.6%; Pred. No. 3.6; ve 29; Mismatches 103; Indels
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Pfam, PP03387; Herpes UL46; J.
Transcription regulation; Trans-acting factor.
Transcription Ap. 74272 NW; C5CA77A16D365379 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                         Varicella-zoster virus (strain Dumas) (VZV).
Viruses; dsDNA viruses, no RNA stage; Herpesviridae;
Alphaherpesvirinae; Varicellovirus.
                                                                                                                                                                                                                                                                                                                                                    01-MAR-1989 (Rel. 10, Created)
01-MAR-1989 (Rel. 10, Last sequence update)
10-NOV-1990 (Rel. 16, Last annotation update)
Alpha trans-inducing factor 74 kDa protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         activation of alpha genes.
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                                                                                                                                                                                                                                                                                                                      STANDARD;
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Best Local Similarity
Matches 61; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NCBI_TaxID=10338;
                                                                                                                                                                                                                                                                                                                      ATI2_VZVD
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4,

10; Gaps

Length 232;

Best Local Similarity 70.0%; Matches 163; Conservative

Query Match

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TISSUE=Brain;
DOMAIN
DOMAIN
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SEQUENCE
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GBR2_HUMAN
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SO.
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                                                                                                                                                                                                                                                                                                                                                                                                "Aczonin, M.W.;

"Aczonin, a 550-kd putative scaffolding protein of presynaptic active
zones, shares homology regions with rim and bassoon and binds
profilin.";
"CENCISION 147:151-162(1999).
"CONTINE TO THE STATE OF STA
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                                                                                                                                                                              Gallus gallus (Chicken).
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Archosauria; Aves; Necgnathae; Galliformes; Phasianidae; Phasianinae;
Gallus.
NCBI_TaxID=9031;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            R GO; GO: 0005509; F: calcium ion binding; ISS.
R GO; GO: 0005509; F: calcium dependent phospholipid binding; ISS.
R GO; GO: 0005524; F: calcium dependent phospholipid binding; ISS.
R GO; GO: 0005524; F: calcium dependent phospholipid binding; ISS.
R GO; GO: 0005529; F: profilin binding; ISS.
R GO; GO: 0006080; P: syraptic vesicle targeting iss.
R InterPro; IPR000809; C2.
R InterPro; IPR000809; C2.
R InterPro; IPR000809; C2.
R InterPro; IPR001565; Synaptotagmin.
R InterPro; IPR001565; Synaptotagmin.
R Pfam; PF00156; PDZ; 1.
R Pfam; PF00159; C2; 2.
R PRINIT; SM00239; C2; 2.
R SWART; SM00239; C2; 2.
R SWART; SM00239; C2; 2.
R PROSITE; PS00499; C2 DOMAIN 1; 1.
R PROSITE; PS0049; C2 DOMAIN 1; 1.
R PROSITE; PS50004; C2 DOMAIN 1; 1.
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                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
TISSUE=Brain;
MEDILINE=99439764; PubMed=10508862;
Wang X., Kibschull M., Laue M.M., Lichte B., Petrasch-Parwez B.,
Kilimann M.W.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PROSITE; PS50106; PDZ; 1.
Calcium/phospholipid-binding; Zinc; Metal-binding; Zinc-finger;
                                                                                            28-FEB-2003 (Rel. 41, Created)
28-FEB-2003 (Rel. 41, Last sequence update)
28-FEB-2003 (Rel. 41, Last annotation update)
Piccolo protein (Aczonin) (Fragment).
                                                               5120 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL; Y19187; CAB60725.1; -. HSSP; P04410; 1A25.
                                                                 STANDARD;
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258
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836
                                                                 CHICK
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NON TER
DOMAIN
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                          CHICK
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2402
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                                                                                                                                                                                                                                                                                                                                                                                                                                       2344 ILPKPAIYPKKKSQIQAPMATAPTAVPLVTSVATLESAAVLKNHVVPVTKTYTPTP-PPV
                                                                                                                                                                                                                                                                                                                                                                                   127 --ISRLLQETSE-QLVALKPWITRONF----SRCLELQCQPDSSTLPPPWSPRPLEATAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TAPQP-------PLLLLLLLLLLLAAAWCLH-WQRTRRTPRPGBQV
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075899, 075974, 075975; Q8WX04; Q9P1R2; Q9UNR1; Q9UNS9;
16-0CT-2001 (Rel. 40, Created)
16-0CT-2001 (Rel. 40, Last sequence update)
10-0CT-2003 (Rel. 42, Last annotation update)
Gamma-aminobutyric acid type B receptor; subunit 2 precursor (GABA-B receptor 2) (GABA-B-R2) (GB2) (GABABR2) (G protein-coupled receptor 51) (GPR 51) (GPR 51) (GPR 51)
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MEDLINE=99087321; PubMed=9872316;
MEDLINE=99087321; PubMed=9872316;
MEDLINE J.H., Wise A., Main M.J., Green A., Fraser N.J., Disney G.H.
Barnes A.A., Emson P., Foord S.M., Marshall F.H.;
"Heterodimerization is required for the formation of a functional
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Merazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE=20193514; PubMed=10727622;
Clark J.A., Mezey E., Lam A.S., Bonner T.I.;
"Distribution of the GABA(B) receptor subunit gb2 in rat CNS.";
Brain Res. 860:41-52(2000).
                                                                                                                                                                                                                      49;
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                                                                                                                                                            7.3%; Score 90.5; DB 1; Length 5120; 24.3%; Pred. No. 48; Ve 19; Mismatches 72; Indels 49
POLY-PRO.
PDZ.
C2 DOMAIN 1.
C2 DOMAIN 2.
MW; A658D9891B65B412 CRC64;
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Borowsky B., Laz I., Gerald C.;
Submitted (JAN-1999) to the EMBL/GenBank/DDBJ databases.
  2324 2343
4414 4493
4627 4726
5003 5094
5120 AA; 560751 M
                                                                                                                                                                                               24.3%;
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Nature 396:679-682(1998).
                                                                                                                                                                                                                            Conservative
                                                                                                                                              Ouery Match
Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PPKPS 2407
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TISSUE=Fetal brain;
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61 ASNLQDEELCGGLWRLVLAQRWMERLKTVAGSKMQGLLERVNTEIHFVTKCAFQPPPSCL 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121 RFVQTNISRLLQETSEQLVALKPWITRQNFSRCLELQCQPDSSTLPPPWSPRPLEATAPT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61 PSNLQDEELCGALWRLVLAQRWMERLKTVAGSKWQGLLERVNTEIHFVTKCAFQPPPSCL 120
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
Kallna T., Storek J.;
"T-cell transplantation in monkeys.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                92.2%; Score 1145.5; DB 6; Length 236; larity 94.9%; Pred. No. 7.9e-104; Conservative 0; Mismatches 11; Indels 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Submitted (JAN-2003) to the EMBL/GenBank/DDBJ databases EMBL, AY226585, AAO72538.1; -. GO; GO:0016020; C:membrane; IEA. GO; GO:0005125; F:Cytokine activity; IEA. InterPro; IFR004213; Flt3 lig. InterPro; IFR004213; Flt3 lig. I. SEQUENCE 236 AA; 26591 MW; 740F33A6A6DC2163 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .......a. kutneria; Pri
Cercopithecinae; Papio.
NCBI_TaxID=208510;
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Matches 224; Conserv
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Q9mzvO canis famil
Q9mzvO canis famil
Q9mzvO bos taurus
Q9cko bos taurus
Q9ckd bos taurus
Q61104 mus musculu
Q6104 mus musculu
Q8vch4 mus musculu
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Q84k17 syrachococc
Q81418 oryza sativ
Q8vim6 mus musculu
Q8vjaq arabidopsis
Q7wga9 bordetella
Q7vu97 bordetella
                                                                                            April 8, 2004, 17:02:32 ; Search time 45.9783 Seconds (without alignments) 1612.649 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                         1 MIVLAPAWSPITYLLLLLLL......RPGEQVPPVPSPQDLLLVEH 235
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GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
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                                                                                                                                                                                                                                                                         1017041 seqs, 315518202 residues
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Maximum Match 100%
Listing first 45 summaries
                                                               - protein search, using sw model
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Q9MZV0
Q9MZU9
Q9GKD9
Q9GKD9
Q61104
Q7Z6N5
Q9LGG8
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Q8VIM6
Q8GYA4
Q7WGA9
Q7VU97
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sp_mammal:*
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sp_organelle:*
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sp_plant:*
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Gapop 10.0 , Gapext 0.5
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Maximum DB seg length: 200000000
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Gaps

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7.7 658 10 08H785 Q8h785 Q8h785 arab 0904h8 Rat 7.7 1240 12 0904H8 G905t0 arab 7.7 1240 12 0904H8 G905t0 arab 7.4 1261 12 0904H8 G905t0 arab 7.4 1400 5 0904D2 G905t0 arab 7.4 1400 5 0904D2 G904D2 G9		17 95 5	7.7	139 4	277N80		OBn775 homo sapien
95.5 7.7 1240 090570 090570 090480 Fac Cytology 95.5 7.7 1240 12 090789 090550 090570 090550) (מייסמטף יקראר שטביקטט
95.5 7.7 1240 12 029DWH8 090500 090500 12 4 CyTo 090550 0		υ C	`.		08118		
93.5 7.5 558 10 0905TO 0905PO		95	۲.				
93 7.5 1217 5 017889 017889 017889 027889 027889 0280751 08902 0280751 08902 0280751 08902 0280751 08902 0280751 08902 0280752 092.5 7.4 1400 5 029020 028040202 02804		93	'n				_
92.5 7.4 187 11 Q8VD70 Q84G70 mus musc 92.5 7.4 1400 5 Q9VDD2 Q9Vdd2 drosophil 92.5 7.4 1400 5 Q9VDD2 Q9Vdd2 drosophil 92.5 7.4 287 16 Q8DH32 Q9Bpd2 Q8C4C2 mus musc 91.5 7.4 674 11 Q8KP12 Q8KH32 Q8C4C2 mus musc 91.5 7.2 270 Q8VMX3 Q9UMT1 homo sapil 88.5 7.1 270 Q8VMX3 Q9UMT1 homo sapil 88.5 7.1 270 Q8VM3 Q9UMT1 Q8VMX3 G9DW12 homo sapil 88.5 7.1 1267 10 Q9AM74 Q9UMT1 Q9UMT1 homo sapil 88.5 7.1 1267 10 Q9AM74 Q9UMT1 Q9UMT1 homo sapil 88.5 7.1 1267 10 Q9AM74 Q9UMT1 Q9UMT1 homo sapil 88.5 7.1 1267 10 Q9AM74 Q9M158 homo sapil 88.5 7.1 1267 10 Q9AM74 Q9M158 homo sapil 88.5 7.1 1267 10 Q9AM74 Q9GK2 SWB			'n		0		U
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<pre>Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Mammalia; Rutheria: Primates: Catarrhini: Cercobithe</pre>	SO	Papio cynoce	ephalus x	Papio	anubis.		
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Indels

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61 ASNLQDEBLCGGLWRLVLAQRWMERLKTVAGSKWQGLLERVNTEIHFVTKCAFQPPPSCL 120
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE=20570936; PubMed=11120823; Mwangla W., Palmer G.H.; Marapia W., Palmer G.H.; Murapia W., Palmer G.H.; "Identification of fetal liver tyrosine kinase 3 (Flt3) ligand domain required for receptor binding and function using naturally occurring
                                                                                                                                                                                                                                                                                                                                                                            1 MTVLAPAWSPTTYLLLLLLSSGLSGTQDCSFQHSPISSDFAVKIRELSDYLLQDYPVTV
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"Molecular cloning of canine and feline flt3 ligand reveals high degree of similarity to the human and mouse homologue but uniquely long cytoplasmic domain.";

DNA Seq. 11:163-166(2000).

BMBL; AF155149; AAF87089.1; -
HSSP; P89771; IETE.

GO; GO:0005125; F:cytokine activity; IEA.

GO; GO:0005125; F:cytokine activity; IEA.

THEAPPO: IPROQUAI3; FIL3 lig.

Pfam; PF02247; flt3 lig; I.

SEQUENCE 291 AA; 32459 MW; BF8SAIOASEAODCC6 CRC64;
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01-WAR-2001 (TrEMBLrel. 16, Last sequence update)
01-UNA-2003 (TrEMBLrel. 24, Last annotation update)
Plt3 ligand isoform-1.
Plt3 ligand isoform-1.
Box taurus (Bovine).
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
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76.3%; Pred. No. 7.5e-74;
iive 12; Mismatches 37; Indels
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GO: GO:0005125; F:cytokine activity; IEA.
InterPro; IPRO04213; Fil3 lig.
Pfam; PF02947; fil3 lig; I.
SEQUENCE 292 AA; 32390 MW; D68B9ED79221202D CRC64;
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                                                                                                                                                                                                                                                                               Score 894.5; DB 6;
Pred. No. 3.5e-79;
9; Mismatches 33;
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J. Immunol. 165:6966-6974(2000)
EMBL; AF282985; AAF99322.1; -.
                                                                                                                                                                                                                                                                                  Query Match 72.0%;
Best Local Similarity 80.5%;
Matches 178; Conservative
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Best Local Similarity 76.34
Matches 171; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Bovidae, Bovinae, Bos.
NCBI_TaxID=9913;
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  61 ASNLQDEELCGGLWRLVLAQRWMERLKTVAGSKMQGLLERVNTEIHFVTKCAFQPPSCL 120
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                                                                           181 APQPP-LILLILLEPGELLLAAAMCIHWQRTRRRFRRGEQVPPVPSPQDLLLVEH 235
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
MEDLINE=20358731; PubMed=10902925;
Yang S., Sim G.Y.
"Molecular cloning of canine and feline flt3 ligand reveals high degree of similarity to the human and mouse homologue but uniquely long cytoplasmic domain.";
                                                                                                                                                                                                                                                                             01-0CT-2000 (TrEMBLrel. 15, Created)
01-0CT-2000 (TrEMBLrel. 15, Last sequence update)
01-0TN-2003 (TrEMBLrel. 24, Last annotation update)
Flt3 ligand.
Canis familiaris (Dog).
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata; Euteleostomi,
Mammalia; Eutheria, Carnivora, Fissipedia, Canide, Canis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-071-2000 (TrEMBLrel. 15, Created)
01-071-2000 (TrEMBLrel. 15, Last sequence update)
01-UTM-2003 (TrEMBLrel. 24, Last annotation update)
Flt3 ligand.
Flt9 lisand.
Flt8 lisand.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 72.1%; Score 895.5; DB 6; Length 3 Best Local Similarity 77.1%; Pred. No. 2.8e-79; Matches 182; Conservative 12; Mismatches 35; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      long cytoplasmic domain.";

DNA Seq. 11.163-166 (2000).

BMBL, AR155146 AAR97088.1; -.

HSSP, P49771; IETE.

GO; GO:0016020; C:membrane; IEA.

GO; GO:005125; F:cytokine activity; IEA.

InterPro; IRR004213; Flt3 lig.

Pfam; PF02947; flt3 lig; I.

SEQUENCE 294 AA; 32394 MW; 6859917A3B74ABCD CRC64;
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SEQUENCE FROM N.A.
MEDLINE=20358731; PubMed=10902925;
Yang S., Sim G.K.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 MTVLAPAWSPTTYLLLI
                                                                                                                                                                                                                                      PRELIMINARY;
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4; Gaps

Length 292;

60ZM60

Q9MZU9

59 9

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April 8, 2004, 16:58:41; Search time 64.4973 Seconds (without alignments) 1029.480 Million cell updates/sec
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1 MTVLAPAWSPTTYLLLLLLL.....RPGEQVPPVPSPQDLLLVEH 235
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GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                            Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                        1586107 segs, 282547505 residues
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Maximum Match 100%
Listing first 45 summaries
                                                                             OM protein - protein search, using sw model
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Gapop 10.0 , Gapext 0.5
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geneseq12003s: *
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1: geneseqp1980s:*
2: geneseqp1990s:*
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Maximum DB seg length: 200000000
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Perfect score:
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

	Description	Aar67541 Human £1t	9 Human	-	Human	3129	Human		Secret	Human	Human fl	5 Amino ac	-	~	0 Secreted	5 Human	4 Human	_	7 Human	0 Mature	<u>ი</u>	7 Human	3 Human	1726 Human	3722 Human	724 Human
SUMMARIES	ΩI	AAR67541	AAW67769	AAY69719	AAB2019	ABB08129	ABG3162	AA01909	AAG79949	ABG74239	ADD22874			ADE80752			•		AAW69007	AAY69720	AAX69729	AAY69727	AAY6972	AAY6972	AAX6972	•
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26	20	ά,	000) C	9 5	3.5	33	3.4	i m	90	3.0	000	0 0	2 4	41	1.4	. 4	1 4		;

ALIGNMENTS

RESULT 1

Isolated ligands for filt 3 receptors - useful for treating anaemia, AIDS 27. .182 /label= Extracellular domain /note= "extracellular domain may start at position 28" | 183. .205 | label= Transmembrane_domain .. .26 'Jabel= Sig_peptide 'note= "signal peptide may extend to position 27" Flt-3 ligand; flt3-L; anemia; cancer; AIDS; gene therapy. 206. .235 /label= Cytoplasmic_domain Location/Qualifiers AAR67541 standard; protein; 235 AA 93US-00068394. 93US-00106463. 93US-00111758. 93US-00162407. 94US-00209502. 94EP-00303575 (revised)
(first entry) Lyman SD, Beckmann MP; (IMMV) IMMUNEX CORP. WPI; 1995-008071/02. N-PSDB; AAQ79079. Human flt-3 ligand. 12-AUG-1993; 25-AUG-1993; 03-DEC-1993; 07-MAR-1994; 11-MAY-1994; Homo sapiens. 19-MAY-1994; 25-MAR-2003 05-AUG-1995 07-DEC-1994. 24-MAY-1993; EP627487-A2. AAR67541; Peptide Domain Domain Domain

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AAY69719;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A method has been developed of initiating or enhancing: (i) an antigenspecific immune tolerance; or (ii) immunotolerance of a therapeutic immunocopanic molecule by addition of a polypeptide, before, after or with the mucosal administration of an immunotolerising amount of the antigen
                                                                                                                                                                                                             9
                                         A human T-cell lambda-gtl0 random primed cDNA library was screened with fragment corresponding to the extracellular domain of mouse [113 ligand [fil5.1] (ht 103.516 of AAQ79076) to isolate human fil-3.1 cDNA. Fil-3 stimulates progenitor and stem cells, and can be used e.g. in gene therapy protocols. (Updated on 25-MAR-2003 to correct PN fileld.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             antigen specific immune tolerance
                                                                                                                                                                                                         1 MIVLAPAMSPITYLLLLLISSGISGTGDCSFQHSPISSDFAVKIRELSDYLLGDYPVIV
                                                                                                                                                                                      MIVLAPAWSPITYLLLLLLSSGLSGTQDCSFQHSPISSDFAVKIRELSDYLLQDYPVTV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Antigen-specific peripheral immune tolerance, flt3-ligand, flt3-L, immunogenic, autoimmune disease, organ transplantation, food allergy, tissue transplantation.
                                                                                                                                                                  Gaps
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                                                                                                                                         Length 235;
                                                                                                                                                                 Indels
                                                                                                                                     Score 1242; DB 2;
Pred. No. 5.8e-109;
; Mismatches 0;
                         Disclosure, Page 29-30; 33pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               thods for initiating or enhancing a using murine or human flt3 ligand.
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100.0%; Pr
tive 0;
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                                                                                                                                          Query Match
Best Local Similarity 100.
Matches 235; Conservative
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N-PSDB; AAV81506.
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   and various cancers
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                                                                                                                     Sequence 235 AA;
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binding the flt3 receptor and is: a) amino acids 28-x of murine flt3 binding the flt3 receptor and is: a) amino acids 28-x of murine flt3 ligand (flt3-L), where x is an amino acid between 163-211, b) amino acids 28-y of human flt3-L, where y is an amino acid between 160-215; and c) a polypeptide that has at least 90% identity to the polypeptides of either (a) or (b). The method ameliorates the effects of autoimmune diseases, food allergies or organ or tissue rejection following transplantation. Administration of flt3-L allows lower doses of antigens to be used in vivo for mucosally administered antigens. The present sequence represents
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 180
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121 RFVQTNISRLLQETSEQLVALKPWITRQNFSRCLELQCQPDSSTLPPPWSPRPLEATAPT
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                                                                                                                                                                                                                                                                                                                                                                                                                   Length 235;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%; Score 1242; DB 2;
.larity 100.0%; Pred. No. 5.8e-109;
Conservative 0; Mismatches 0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        standard; protein; 235
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ë
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                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity
les 235; Conserv
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                                                                                                                                                                                                                                                                                                                                                                Sequence 235 AA;
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                                                                                                                                                                                                                                                                                                       human flt3-L
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    05-JUL-2000
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31-JUL-2000; 2000WO-US020679.

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The invention relates to novel soluble flt3 ligand (flt3-L) polypeptides which exhibits increased or decreased biological activity relative to the full length wild type (this sequence) or mature (AARG6720) flt1-L. polypeptides. The flt3-L protein binds call surface tyrosine kinase or expension regulate growth and differentiation of hematopoietic progenitor calls. The flt3-L protein can be used to induce callular properiors and regulate growth and differentiation, e.g. in hematopoietic natural killer (NK) or dendritic calls, especially in the presence of growth factors such as interleukins, colony simulating factors or protein kinases. The protein can also modulate, augment or enhance a patient's immune response and can also modulate, augment or enhance a patient's allergy, autoimmunity or immunosuppression). The protein may be used to treat a pathological condition e.g. myelodysplasia, aplastic anemia, HIV infection, breast, small cell lung, testicular or ovarian cancer, lymphoma, multiple myeloma, neuroblastoma or acute leukemia
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61 ASNLÓDEBLCGGLWRLVLAQRWMBRLKTVAGSKMÓGLLBRVNTBIHFVTKCAFÓPPSCL 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121 RFVQTNISRLLQETSEQLVALKPWITRQNFSRCLELQCQPDSSTLPPFWSPRPLEATAPT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121 RFVQTNISRLLQETSEQLVALKPWITRONFSRCLELQCQPDSSTLPPPWSPRPLEATART 180
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 MIVLAPAWSPITYLILILISSGESGTQDCSFQHSPISSDFAVKIRELSDYLLQDYPVIV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 MTVLAPAWSPITYLLLLLLLSSGLSGTQDCSFQHSPISSDFAVKIRELSDYLLQDYPVTV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61 ASNLODEELCGGLWRLVLAQRWMERLKTVAGSKMQGLLERVNTEIHFVTKCAFQPPPSCL
                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Indels 0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181 APQPPLLLLLLLLPVGLLLLAAAWCLHWQRTRRRTPRPGGQVPPVPSPQDLLLVEH 235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APQPPLILLILLILPVGLLLLAAAWCLHWQRTRRRTPRPGGCOVPPVPSPQDLLLVEH 235
                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 100.0%; Score 1242; DB 3; Length 235; Best Local Similarity 100.0%; Pred. No. 5.8e-109; Matches 235; Conservative 0; Mismatches 0; Indels 0.
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/label= Mature protein
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'label= Signal_peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Location/Qualifiers
Claim 1; Page 72-73; 90pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAB20192 standard; protein; 235 AA.
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                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human Flt-3 ligand.
                                                                                                                                                                                                                                                                                                                                                              Sequence 235 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAB20192;
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/label= Extracellular domain

Transmembrane domain

/label= Tra

Domain Domain

206. .235 /label= Cytoplasmic_domain

WO200109303-A2

08-FEB-2001

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The present sequence is that of human Fms-like tyrosine kinase (Fit-3 ligand). The invention is directed to enhancing the immune response of vertebrate to an antigen or a cytokine by administering in vivo, into a tissue of a vertebrate, a Ft-3 ligand-encoding polymucleotide, and 1 or more antigen. Or cytokine-encoding polymucleotides. The Fit-3 ligand-encoding polymucleotide may encode the present full-length human Fit-3 ligand polypeptide, or anino acids 27-160, 1-160, 27-185, 1-185, or 27-185 of the ligand. The polymucleotides are incorporated into the cells of the vertebrate in vivo, and a prophylactically or therapeutically effective amount of Fit-3 ligand and 1 or more antigens or cytokines is produced in vivo. Pharmaceutical compositions comprising the polymucleotides are useful for suppressing tumour growth in a mammal. The tumour is melanoma, glioma or lymphoma, particularly B-cell lymphoma. They am also be useful for suppressing tumour growth in a mammal. The cin humans), parasitic (e.g. malaria) and fungal infections; (b) can carial diseases (e.g. rhemmatoxia arthritis and ostecarthritis); (c) cancer, and (d) Aujeszky's disease in pigs. Various other examples of these diseases are given in the specification
                                                                                                                                                                                                                                                 Immunogenic compositions comprising Flt-3 ligand encoding polynuclectide and one or more antigen, or cytokine encoding polynuclectides, useful for suppressing tumor growth and for treating autoimmune diseases (e.g. rheumatoid arthritis).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61 ASNIQDEELCGGLWRLVLAQRWMERLKTVAGSKMQGLLERVNTEIHFVTKCAFQPPPSCL 120
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 MIVLAPAWSPITYLLILLISSGLSGTQDCSFQMSPISSDFAVKIRELSDYLLQDYPVTV 60
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181 APOPPLILLILLIPVGLILLAAAMCLHWORTRRRTPRPGEOVPPVPSPODLLIVEH 235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 100.0%; Score 1242; DB 4; Length 235; Best Local Similarity 100.0%; Pred. No. 5.8e-109; Matches 235; Conservative 0; Mismatches 0; Indels 0;
                                                                                                                                                                                                                                                                                                                                                              Claim 2; Page 132-133; 149pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ABB08129 standard; protein; 235 AA.
                                              99US-0146170P
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human Flt3L polypeptide.
                                                                                                                                                                                 WPI; 2001-123319/13.
                                                                                       (VICA-) VICAL INC.
                                                                                                                                                                                                       N-PSDB; AAF30310.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 235 AA;
                                              30-JUL-1999;
                                                                                                                                     Hermanson GG;
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Tumour; cancer; dendritic cell mobilisation factor; tumour-killing agent; dendritic cell maturation agent; T cell enhancing factor; skin cancer; antigen-specific T cell; prostate cancer; liver cancer; bone tumour; brain.tumour; spinal cord tumour; cervical intraepithelial neoplasia; actinic keratosis; dendritic cell maturation stimulator; cytostatic; dendritic cell activator; T cell enhancer; human; Flt3L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                         23-OCT-2001; 2001WO-US046254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       24-OCT-2000; 2000US-0242868P
                        29-NOV-2002 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Lyman SD,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2002-674891/72.
                                                                        Human Flt3L protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (IMMV) IMMUNEX
                                                                                                                                                                                                                                                                                                                                                        WO200266044-A2.
                                                                                                                                                                                                                                                                                                        Homo sapiens
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  invention
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ID AAO1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The invention relates to treating an individual at risk for or suffering from infection with a pathogenic or opportunistic organism. The method involves administering a combination of two to five agents comprising:

(a) dendritic cell mobilisation factor; (b) dendritic cell maturation agent; (c) dendritic cell activation agent; (d) T cell enhancing factor; or (e) activated, antigen-specific T cells. The methods are useful for treating an individual at risk for or suffering from infection with a pathogenic or opportunistic organism, e.g. viruses (e.g. HIV), bacteria (e.g. M. tuberculosis), yeast, fingi (e.g. C. albicans) or protozoa (e.g. T. cruzi, which causes Chaga's disease). The methods are especially useful for treating an individual suffering from immunosuppression by useful for treating inflammations. In particular, the method is useful for treating inflammations, chickenpox, oral or genital harpes, monouncleosis, multifocal leukcencephalopathy, hepatitis, AIDS, T cell leukemia or T cell lymphoma. The activated antigen-presenting dendritic cells are useful as a vaccine adjuvant. The present sequence representic a human Flish polypeptide fragment, that can be used as a constant of the const
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Treating an individual suffering from infection, e.g. inflammation, chickenpox or AIDS, by administering a combination of dendritic cell mobilization factor or maturation agent, T cell enhancing factor and antigen-specific T cells.
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                                                                                                                                                                                                                                                                                                                                                        Butz EA,
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100.0%; Pred. No. 5.8e-109;
tive 0; Mismatches 0;
  tuberculostatic; cytostatic; human; Flt3L.
                                                                                                                                                                                                                                                                                                                                                     Maliszewski CR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Disclosure; Page 37-38; 43pp; English.
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                                                                                                                                                                                                                                                     02-NOV-2000; 2000US-0245721P
                                                                                                                                                                                                       30-OCT-2001; 2001WO-US044834
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Local Similarity 100.
Matches 235; Conservative
                                                                                                                                                                                                                                                                                                                                                           Smedt IN,
                                                                                                                                                                                                                                                                                                     (IMMV) IMMUNEX CORP
                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2002-500114/53.
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                                                                                                                                                                                                                                                                                                                                                              De
                                                     Homo sapiens
                                                                                                                                                    10-MAY-2002
                                                                                                                                                                                                                                                                                                                                                        Lynch DH,
Thomas EK;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
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Maliszewski

Smedt IN,

De

Lynch DH,

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180
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  180
                                                                                                                                                                                        The present invention relates to a new method for treating a tumourbearing subject. The method involves administering a combination of 2 to 5 agents comprising dendritic cell mobilisation factor, dendritic cell maturation agent, tumours tumour killing agent, T cell enhancing factor or activated, antigen-specific T cells. The method is useful for treating tumours or cancers in a subject e.g. skin cancer, prostate cancer, liver cancer, tumours of the bone, brain or spinal cord, actinic keratosis, or cervical intraepithelial neoplasia. The present amino acid sequence represents the human Flish protein that was used in the method of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9
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Treating an individual with tumors or cancers, e.g. liver cancer or tumor, by administering a combination of dendritic cell populations, cell enhancing factors and activated, antigen-specific T cells.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APOPPLILLILLILLPVGLILLLAAAWCIHWQRTRRRTPRPGBQVPPVPSPQDLLVEH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ;
0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%; Score 1242; DB 5; 100.0%; Pred. No. 5.8e-109;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Mismatches
                                                                                                                                      Disclosure, Page 38-39, 44pp, English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches 235; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
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Gene, secreted; tyrosine kinase receptor ligand; subfamily;
phosphorylation; kidney; blood; lung; brain glioblastoma; prostate;
                                                                                                                         25-JUN-2002; 2002WO-US020172.
                                                                                                                                                27-JUN-2001; 2001US-00891498
                                                                                                                                                                                                                   WPI; 2003-267895/26
                                                                                                                                                                        (PEKE ) PE CORP NY.
                                 colon; leukocyte
                                                                            WO2003002138-A1
                                                     unidentified
                                                                                                    09-JAN-2003.
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                                                                                                                                                                                                                                                                                                                                                         The present invention relates to a method of producing a population of activated, Cryptococcus neoformans antigen-presenting dendritic cells, comprising causing the obtained dendritic cells to present the antigen and maturing the dendritic cells. The activated, C. neoformans antigen expressing dendritic cells are useful for treating, or as vaccines or vaccine adjuvants against, C. neoformans infection, or for generating antigen-specific T cells. The present sequence is a human protein shown in the exemplification of the invention
                                                                                                                                                                                                                                                                             Producing a population of activated, Cryptococcus neoformans antigen-
presenting dendritic cells for preventing or treating C. neoformans
infection comprises causing the obtained dendritic cells to present the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ASNLODEELCGGLWRIVLAQRWMERLKTVAGSKWQGLLERVNTEIHFVTKCAFQPPPSCL
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0
                                C neoformans antigen expressing dendritic cell related protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 235;
                                                       Human; fungicide; fungal infection; dendritic cell; antigen;
Cryptococcus neoformans; vaccine; immunostimulant.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%; Score 1242; DB 5;
100.0%; Pred. No. 5.8e-109;
iive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                         Disclosure; Page 25-26; 32pp; English
                                                                                                                                                               14-DEC-2001; 2001WO-US048288
                                                                                                                                                                                      04-JAN-2001; 2001US-0259653P
             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches 235, Conservative
                                                                                                                                                                                                             (IMMV) IMMUNEX CORP
                                                                                                                                                                                                                                                        WPI; 2002-674896/72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 235 AA;
                                                                                                                    WO200266053-A2
                                                                                             Homo sapiens
            22-NOV-2002
                                                                                                                                                                                                                                    Thomas EK;
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Ceccardi T,

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The sequences given in AAG79949-50 are included in the scope of the invention as they show high levels of similarity to the secreted peptide of the invention. The secreted protein is related to the tyrosine kinase receptor ligand subfamily. This protein effects protein phosphorylation. The human secreted peptides are useful in substantial and specific assays. The human secreted peptides are useful in substantial and specific assays carlibedies or to elicit immune response, as reagents in assays that determine the levels of protein in biological fluids, and as markers for tissues where the corresponding protein is expressed. The peptides and the antibodies are useful in drug screening assays, tissue typing and constructing recombinant vectors, and expressing antigenic portions of probes, primers and chemical intermediates in biological assays, for constructing recombinant vectors, and expressing antigenic portions of the protein. The peptide and nucleic acid molecules are useful in the identification of therapeutic proteins and may serve as models or targets for the development of human therapeutic acid molecules are useful in the secreted peptide activity in cells and tissues that express the secreted peptide, such as in kidney, blood, lung, brain glioblastomas, prostate, colon or leukocytes. (Updated on 23-OCT-2003 to standardise OS field)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121 REVOTNISRLLQETSEQLVALKPWITRQNFSRCLELQCQPDSSTLPPPWSPRPLEATAPT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%; Score 1242; DB 6; Length 235; 100.0%; Pred. No. 5.8e-109; ive 0; Mismatches 0; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ź
                                                                                                                                                            Disclosure; Fig 2A; 66pp; English.
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Best Local Similarity 100.
Matches 235; Conservative
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ABG74239
ID ABG7
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Secreted human protein comparison protein #1.

(revised)
(first entry)

23-OCT-2003 16-MAY-2003

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AAG79949;

AAG79949 standard; protein; 235 AA

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The invention relates to an antibody that binds specifically to human fit is ligand. The antibodies that are immunoreactive with fit-3 ligand are useful in ELISA to measure concentration of fit2-1 in plasma or serum, and predicting the status of a disease such as Fanconi's anaemia, acquired aplastic anaemia, or myelodysplastic syndromes. The present sequence represents the amino acid sequence of the human fit3-ligand.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               New antibodies specifically binding to human flt-3 ligand, useful in immunoassays for measuring concentration of flt3-L in plasma or serum, for predicting the status of a disease such as Fanconi's anemia or acquired aplastic anemia.
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                                121 RFVQTNISRLLQETSEQLVALKPWITRQNFSRCLELQCQEDSSTLPPPWSPRPLEATAPT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                             235
                                                                           181 APOPPLILLLILDPVGLLLLAAAWCLHWORTRRRTPRFGEOVPPVPSPOLLLVEH
                                                                                                           181 APOPPELELELEPVGLELLAAAWCLHWQRTRRRTPRPGGGVPPVPSPQDELLVEH
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                                                                                                                                                                                                                                                                                                                                                               anaemia; acquired aplastic anaemia;
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llarity 100.0%; Pred. No. 5.8e-109;
Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 5; SEQ ID NO 6; 17pp; English.
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                                                                                                                                                                                                                 ADD22874 standard; protein; 235
                                                                                                                                                                                                                                                                                                                                                                   flt-3 ligand; Fanconi's anaemia
myelodysplastic syndrome; human
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93US-00110758.
93US-00111758.
94US-0020502.
94US-00243545.
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                                                                                                                                                                                                                                                                                              (first entry)
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N-PSDB; ADD22873.
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nes 235; Conserv
                                                                                                                                                                                                                                                                                                                                 Human flt3-ligand
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                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens
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25-AUG-1993;
                                                                                                                                                                                                                                                                                            15-JAN-2004
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Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The invention relates to an antibody that binds to mouse flt-3 ligand (flt-3 L) encoded by the cDNA insert in vector sfHAV-EO410 in Escherichia coll bHHDD cells having American Type Culture Collection (ATC) Accession No. 69286, where the ligand comprises the truncated extracellular domain of mouse flt-3 L. The methods and compositions are useful for screening, diagnostic and bological assays in disorders having elevated serum levels of flt-3 ligand, such as cancer, cytopeania, myelodysplastic syndromes, stem cell disorders, refractory anaemia, chronic playcythaenia, plastic ansemia, Fnt3. is also useful in allogeneic, syngeneic or autologous bone marrow transplants in patients undergoing cytoreductive therapies, as well as cell expansion. Flt3-L is also useful in gene therapy and progenitor and stem cell mobilisation systems. The present sequence represents human flt-3 L
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     antibody binding mouse flt-3 ligand, useful for screening, diagnostic biological assays in disorders with elevated serum levels of flt-3 and, such as Fanconi's and myelodysplastic syndrome, aplastic and
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                                                                                                                   Human, fit-3 ligand, fit-3 L, stem cell disorder, cancer, cytopaenia, myelodysplastic syndrome; gene therapy refractory anaemia; chronic myelomonocytic leuksemia; aplastic anaemia; Fanconi's anaemia; plycythaemia; antibody; bone marrow transplant, cytoreductive therapy; cell expansion; stem cell mobilisation.
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; Pred. No. 5.8e-109;
0; Mismatches 0;
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                                                                                                                                                                                                                                                                                                                                                                                            93US-00068394.
93US-00106463.
93US-00111758.
94US-00209502.
94US-00243545.
95US-00444632.
                                                                                                                                                                                                                                                                                                                                                         2002US-00095449
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                                                                                       Human Flt-3 ligand, Flt-3 L.
                                                    entry)
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Best Local Similarity 100.
Matches 235; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Beckmann MP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (LYMA/) LYMAN S D.
(BECK/) BECKMANN M P.
                                                  (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2003-209211/20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      refractory anemia.
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                                                                                                                                                                                                                                                                                  US2002160004-Al.
                                                                                                                                                                                                                                               Homo sapiens.
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25-AUG-1993;
03-DEC-1993;
07-MAR-1994;
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                                                  16-APR-2003
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              ABG74239
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61 ASNIQDEBLCGGLWRLVLAQRWWERLKTVAGSKMQGLLERVNTEIHFVTKCAFQPPPSCL 120
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61 ASNLQDEELCGGLWRLVLAQRWMERLKTVAGSKWQGLLERVNTEIHFVTKCAFQPPPSCL 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Immunization protocols to enhance immune responses against vaccine antigens using an Flt3-ligand, useful for preventing or treating viral bacterial infections, cancer, allergies, and fungal, parasitic and protozoal infections.
                                                                          1 MIVLAPAWSPITYLLLLLLLSSGLSGTQDCSFQHSPISSDFAVKIRELSDYLLQDYPVTV
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                                                 RFVQTVISKLLQETSEQLVALKPWITRQNFSRCLELQCQPDSSTLPPPWSPRPLEATAPT
                                                                                                                                                                       181 APOPPLILILILIPUGLILILAAAMCLHWQRTRRRTPRPGEQVPPVFSPQDLLLVEH 235
                                                                                                                                              181 APQPPLLLLLLLLPVGLLLLAAAWCLHWQRTRRRTPRRGEQVPPVPSPQDLLLVEH
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100.0%; Pred. No. 5.8e-109;
tive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Flt3-ligand; vaccine; cancer; infection; human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Maliszewski CR;
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                                                                                                                                                                                                                                                                                                                      ADE48117 standard; protein; 235
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19-NOV-2002; 2002US-0427835P.
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hes 235; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human Flt3-ligand
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                                                                                                                                                                                                                                                                                                                                                                                                                   29-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mckenna HJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                09-OCT-2003
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Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Cancer; dendritic cell; tumour-specific immune response; tumour growth; tumour incidence; tumour rejection; Flt3-ligand; haematopoietic progenitor; stem cell; immune response; cytostatic; human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The present invention relates to methods for treating cancer, increasing the number of dendritic cells, augmenting a tumour-specific immune response, reducing tumour growth, reducing tumour incidence, and increasing tumour rejection in a patient having cancer. The method involves administering a composition comprising Flt3-ligand. Flt3-ligand can generate large numbers of dendritic cells from haematopoietic progenitor and stem cells. Flt3-ligand can be used to augment an immune response in vivo. The methods of the invention are useful for treating cancer. The present sequence represents human flt3-ligand.
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                                                                121 RFVQTNISRLLQETSEQLVALKPWITRQNFSRCLELQCQPDSSTLPPPWSPRPLEATAPT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Treating cancer, increasing the number of dendritic cells, augmenting tumor-specific immune response, and increasing tumor rejection in a patient having cancer by administering a composition comprising Flt3-
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                               RFVQTNISRLLQETSEQLVALKPWITRQNFSRCLELQCQPDSSTLPPPWSPRPLEATAPT
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                                                                                                                                                   APOPPLLLLLLLPVGLLLLAAAWCLHWQRTRRRTPRPGEQVPPVPSPQDLLLVEH
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Maliszewski CR;
                                                                                                                                                                                                                                                                                                                                                                                                                                               Amino acid sequence for human flt3-ligand
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 12; SEQ ID NO 2; 15pp; English.
                                                                                                                                                                                                                                                                                                   standard; protein; 235 AA
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96US-00725540.
98US-00154903.
99US-00444027.
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Matches 235, Conservative
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17-SEP-1998;
19-NOV-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens
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ADD80915
IND 80915
IND 80915
IND 29-JA
XX ADD80
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XW Cance
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The present invention describes a nucleic acid sequence (I) which encodes a polypeptide consisting of TAPIB, MACS, UVRAG, ELAVIJ, TCFCLI, ABCFI, CATM2, TCFCLID, CATM2, TCFCLI
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                                                                     181 APQPPLLLLLLLPVGLLLLAAAWCLHWQRTRRRTPRRPGEQVPPVPSPQDLLLVEH 235
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            frameshift mutation, microsatellite, cytostatic; neuroprotective; vasotropic; vaccine; gene therapy; neurodegenerative disorder;
181 APQPPLLLLLLLLBVGLLLLAAAWCLHWQRTRRRTPRPGEQVPPVPSPQDLLLVEH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Doeberitz M, Gebert J, Linnebacher M, Woerner S;
Bork P, Yuan YP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Microsatellite related FTL3L wt ORF amino acid sequence.
                                                                                                                                                                                                                                                                                                                                                                                         ADE80752 standard; protein; 235 AA
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18-APR-2002; 2002EP-00008773.
18-APR-2002; 2002EP-00008774.
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vascular disease, cancer.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                29-JAN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          23-OCT-2003
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADE80752;
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The sequences given in AAG79949-50 are included in the scope of the invention as they show high levels of similarity to the secreted peptide of invention as they show high levels of similarity to the secreted peptide coff the invention. The secreted protein is related to the tyrosine kinase receptor ligand subfamily. This protein effects protein phosphorylation. The human secreted peptides are useful in substantial and specific assays related to functional information of the peptide sequences, to raise artibodies or to elicit immune response, as reagents in assays that determine the levels of protein is expressed. The peptides and the antibodies are useful in drug screening assays, tissue typing and the antibodies are useful in drug screening assays, tissue typing and pharmacogenomic analysis. The nucleic acid molecules are useful as probes, primare and chemical intermediates in biological assays, for constructing recombinant vectors, and expressing antigenic portions of the protein. The peptide and nucleic acid molecules are useful in the identification of therapeutic proteins and may serve as models or targets for the development of human therapeutic agents that modulate human secreted peptide activity in cells and tissues that express the secreted peptide, such as in kidney, blood, lung, brain glioblastomas, prostate,
                                                                           120
                                                                                                                                                      121 RFVQTNISRLLQETSEQLVALKPWITRQNFSRCLELQCQPDSSTLPPPWSPRPLEATAPT 180
                                                                                                                                                                                            180
                                   9
                         1 MIVLAPAWSPITYLILILILILISSGLSGTQDCSPQHSPISSDFAVKIRELSDYLLQDYPVIV
                                                                                                  61 ASNLQDEELCGGLWRLVLAQRWWERLKTVAGSKWQGLLERVNTEIHFVTKCAFQPPPSCL
                                                                                                                                                                               New isolated human secreted peptide and nucleic acids, useful for the development of human therapeutics and diagnostic compositions, drug screening assays, tissue typing and pharmacogenomic analysis.
                                                                           ASNLQDEELCGGLWRLVLAQRWMERLKTVAGSKMQGLLERVNTEIHFVTKCAFQPPPSCL
MIVLAPAWSPITYLLLLLLLSSGLSGTQDCSFQHSPISSDFAVKIRELSDYLLQDYPVTV
                                                                                                                                                                                                                                      235
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gene, secreted; tyrosine kinase receptor ligand; subfamily;
phosphorylation; kidney; blood; lung; brain glioblastoma; prostate;
                                                                                                                                                                                                                                                        181 APQPPLLLLLLLPVGLLLLAAAMCLHWQRTRRRTPRPGEQVPPVPSPQDLLLVBH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Secreted human protein comparison protein #2.
                                                                                                                                                                                                                                                                                                                                                                           AAG79950 standard; protein; 235 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Disclosure; Fig 2B; 66pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ladunga I;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     25-JUN-2002; 2002WO-US020172.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           27-JUN-2001; 2001US-00891498.
                                                                                                                                                                                                                                                                                                                                                                                                                                                         (revised)
(first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gong F, Ceccardi T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2003-267895/26.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               colon; leukocyte.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  unidentified.
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16-MAY-2003
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Gaps

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Length 235; Indels

Score 1242; DB 7; Pred. No. 5.8e-109; ; Mismatches 0;

Query Match Best Local Similarity 100.0%; Pi Matches 235; Conservative 0;

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121 RFVQTNISRLLQETSEQLVALKPWITRQNFSRCLELQCQPDSSTLPPPWSPRPLEATAPT 180
                                                                                                                                                                               61 ASNLQDEELCGGLWRLVLAQRWMERLKTVAGSKWQGLLERVNTEIHFVTKCAFQPPPSCL 120
                                                                                                                                                             ASNIQDEELCGGLWRLVLAQRWMERLKTVAGSKMQGLLERVNTEIHFVTKCAFQPPPSCL 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New ligand for the Flt3 tyrosine kinase receptor - and related nucleic acid, vectors, host cells and antibodies, useful for treating abnormal cell physiology and proliferation, e.g. cancer, also for diagnosis and drug screening.
                                                                                                                          1 MIVLAPAWSPITYLLILLISSGLSGTQDCSFQHSPISSDFAVKIRELSDYLLQDYPVIV
                                                                                                                                                                                                                                            121 RFVQTNISRLLQETSEQLVALKPWITRQNFSRCLELHCQFDSSTLPPFWSFRFLEATAPT
                                                                                                       1 MIVLAPAWSPITYLLLLLLLLSSGLSGTQDCSFQHSPISSDFAVKIRELSDYLLQDYPVTV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A cDNA library from the human stromal cell line 295V48, in pME185, wa screened with an 800 bp fragment derived from mouse clone Tl18. This fragment encompasses the coding region conserved between two mouse clones, Tl18 and Tl10. Approx. 20 positive clones were selected and
colon or leukocytes. (Updated on 23-OCT-2003 to standardise OS field)
                                                                               0; Gaps
                                                                                                                                                                                                                                                                            235
                                                                                                                                                                                                                                                                                         181 APQPPLLLLLLLLPVGLLLLAAAWCLHWQRTRRRTPRGEQVPPVPSPQDLLLVEH
                                                   Length 235;
                                                                              Indels
                                                Score 1237; DB 6;
Pred. No. 1.7e-108;
0; Mismatches 1;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Flt3 ligand; tyrosine kinase receptor ligand
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human S86/S109 Flt3 ligand peptide sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (SCHE ) SCHERING CORP. (INRM ) INST NAT SANTE & RECH MEDICALE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 11; Page 76-77; 90pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Birnbaum D,
                                                                                                                                                                                                                                                                                                                                                                            AAR66175 standard; peptide; 235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          93US-00065231.
93US-00089263.
93US-00106340.
93US-00105311.
93US-00155111.
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                                                   Query Match
Best Local Similarity 99.6%;
Matches 234; Conservative (
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(first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 1995-006787/01.
N-PSDB; AAQ79642.
                            Sequence 235 AA;
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07-JUL-1993;
16-JUL-1993;
13-AUG-1993;
24-AUG-1993;
19-NOV-1993;
03-DEC-1993;
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10-AUG-1995
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partially sequenced. Two clones, S86 and S109, were found to be approx. 75% homologous to the mouse clones over the first 163 AAs. Clone S86 continued to show homology to T110 until the stop codon, although to a lesser degree, for an overall homology of 66%. Clones T118 and S109 do not show homology to each other or to the other clones after mouse residue 163 (human residue 160). An additiona mouse clone designated MB8 has a 29 AA insert at the junction between the common and divergent portions of the mouse ligand. (Updated on 25-MAR-2003 to correct PN field.)
                                                                                                                                                                                                                                                                     1 MIVLAPAWSPITYLLILLISSGISGTQDCSFQHSPISSDFAVKIRELSDYLLQDYPVIV
                                                                                                                                                                                                                                                                                                                                           61 ASNIODEELCGGLWRLVIAQRWMERLKTVAGSKWQGLLERVNTEIHFVTKCAFQPPPSCL
                                                                                                                                                                                                                                                                                                                                                             1 MTVLAPAWSPTTYLLILLISSGLSGTQDCSFQHSPISSDFAVKIRELSDYLLQDYPVTV
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                                                                                                                                                                                                        Length 235;
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                                                                                                                                                                                                    Score 1236; DB 2;
Pred. No. 2.1e-108;
0; Mismatches 1;
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                                                                                                                                                                                                      Query Match
Best Local Similarity 99.6%;
Matches 234; Conservative (
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he : 66.4973 secs
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Fri Apr

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RESULT 1
US-08-994-468-6
                                                                                                                                                                                                         April 8, 2004, 17:07:57; Search time 47.2554 Seconds (without alignments) 1307.583 Million cell updates/sec
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1242
1 MTVLAPANSPITYLLILILL......RPGEQVPPVPSPQDLLLVEH 235
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1: /cgn2_6/ptodata/1/pubpaa/PCT_NEW_PUB.pep:*

2: /cgn2_6/ptodata/1/pubpaa/PCT_NEW_PUB.pep:*

3: /cgn2_6/ptodata/1/pubpaa/NSO6_NEW_PUB.pep:*

4: /cgn2_6/ptodata/1/pubpaa/USO6_NEW_PUB.pep:*

5: /cgn2_6/ptodata/1/pubpaa/USO6_NEW_PUB.pep:*

6: /cgn2_6/ptodata/1/pubpaa/NSO7_NEW_PUB.pep:*

7: /cgn2_6/ptodata/1/pubpaa/NSO8_NEW_PUB.pep:*

8: /cgn2_6/ptodata/1/pubpaa/USO8_NEW_PUB.pep:*

9: /cgn2_6/ptodata/1/pubpaa/USO8_NEW_PUB.pep:*

10: /cgn2_6/ptodata/1/pubpaa/USO9_PUBCOMB.pep:*

11: /cgn2_6/ptodata/1/pubpaa/USO9_PUBCOMB.pep:*

12: /cgn2_6/ptodata/1/pubpaa/USO9_PUBCOMB.pep:*

13: /cgn2_6/ptodata/1/pubpaa/USO9_PUBCOMB.pep:*

14: /cgn2_6/ptodata/1/pubpaa/USO8_PUBCOMB.pep:*

15: /cgn2_6/ptodata/1/pubpaa/USO8_PUBCOMB.pep:*

16: /cgn2_6/ptodata/1/pubpaa/USO8_PUBCOMB.pep:*

17: /cgn2_6/ptodata/1/pubpaa/USO8_PUBCOMB.pep:*

18: /cgn2_6/ptodata/1/pubpaa/USO8_NEW_PUB.pep:*

19: /cgn2_6/ptodata/1/pubpaa/USO8_NEW_PUB.pep:*

19: /cgn2_6/ptodata/1/pubpaa/USO8_NEW_PUB.pep:*

19: /cgn2_6/ptodata/1/pubpaa/USO8_NEW_PUB.pep:*
GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Total number of hits satisfying chosen parameters:
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Maximum Match 100%
Listing first 45 summaries
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Gapop 10.0 , Gapext 0.5
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Perfect score:
Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Scoring table:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Searched:
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ALIGNMENTS

SUMMARIES

Description	Sequence 6, Appli Sequence 1, Appli Sequence 1, Appli Sequence 2, Appli Sequence 2, Appli Sequence 6, Appli Sequence 6, Appli Sequence 174, App Sequence 174, App Sequence 10, Appl Sequence 10, Appl Sequence 10, Appl Sequence 10, Appl Sequence 10, Appl Sequence 11, Appli Sequence 11, Appli Sequence 11, Appli Sequence 11, Appli Sequence 12, Appli
QI	US-08-994-468-6 US-09-448-378-1 US-09-9918-06-6 US-09-9918-06-6 US-10-643-384-2 US-10-095-449-6 US-10-095-449-6 US-10-314-035-6 US-10-314-035-6 US-10-116-275-174 US-10-140-464-60 US-09-904-536-18 US-09-904-536-18 US-09-904-536-18 US-09-904-536-18 US-09-904-536-18
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equence 14, equence 17, equence 15, equence 15, equence 13	9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	equence 1 equence 2 equence 2 equence 2 equence 2	9 0 0 0 0 0	Sequence 31, Appl Sequence 13, Appl Sequence 19, Appl Sequence 14, Appl Sequence 68, Appl Sequence 4, Appli
US-09-904-536-14 US-09-904-536-11 US-09-904-536-11 US-09-904-536-15	-09-904-536-8 -09-904-536-8 -09-904-536-1 S-10-218-654-1 S-10-262-439-6	10-552-4534-4 -10-053-3558-4 -10-262-439-2 -10-262-439-2 -10-262-439-2 -10-218-654-2	10-262-439-4 08-994-468-2 09-948-378-2 09-983-806-2 -10-095-499-2 -10-314-035-2	-10-218-654- -10-262-439- 09-904-536-1 -10-304-946- -10-161-493-
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Sequence 6, Application US/08994468
; Sequence 6, Application US/0899468
; Sequence 6, Application US/0899468
; Publication No. US20030148516A1
EDENERAL INFORMATION: Stewart D.
BECKNEAD, W. Patricia
RITLE OF INVENTION: Ligands for flt3/flk-2 Receptors
NUMBER OF SEQUENCES: 8
CORRESSEE: Stephen L. Malaska, Immunex Corporation
STREET: Stephen L. Malaska, Immunex Corporation
STREET: Seattle
CITY: Seattle
STREET: Mashington
COUNTRY: Washington
COUNTRY: Washington
COMPUTER: READABLE FORM:
MEDIUM TYPES Floppy disk
COMPUTER: Apple Macintosh
OPERATING SYSTEM: Macintosh
OPERATING SYSTEM: Macintosh
OPERATING SYSTEM: Mccosoft Word, Version #5.1
CURRENT APPLICATION NAMBER: US/08/994,468
FILING DATE: 19-Dec-1997
CLASSIFICATION NAMBER: 08/106,463
FILING DATE: August 12, 1993
APPLICATION NUMBER: 08/106,463
FILING DATE: August 12, 1993
APPLICATION NUMBER: 08/068,394
FILING DATE: Magnet 12, 1993
APPLICATION NUMBER: 08/068,394
FILING DATE: Malaska, Stephen L.
REFERENCE/DOCKET NUMBER: 2813-C
REFERENCE/DOCKET NUMBER: 2813-C

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RESULT 3
US-09-983-806-6
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RFVQTNISKLLQETSEQLVALKPWITRQNFSRCLELQCQPDSSTLPPPWSPRPLEATAPT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     180
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                                                                                                                                                                                                                                                                                                                                                                                                                   61 ASNLODEELCGGLWRLVLAQRWMERLKTVAGSKWQGLLERVNTEIHFVTKCARQPPPSCL 120
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                                                                                                                                                                                                                                          100.0%; Score 1242; DB 8;
ilarity 100.0%; Pred. No. 1.1e-102;
Conservative 0; Mismatches 0;
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Patent No. US20020034517A1
GENERAL INFORMATION:
TITLE OF INVENTION: Dendritic Cell Stimulat
FILE REFERENCE: 2836-D
CURRENT APPLICATION NUMBER: US/09/448,378
CURRENT FILING DATE: 1999-11-23
NUMBER OF SEQ ID NOS: 2
SOFTWARE: Patentin version 3.0
SENGTH: 235
                                                     INFORMATION FOR SEQ 1D NO: 6:
SEQUENCE CHARACTERISTICS:
LENGTH: 235 amino acid
TYPE: amino acid
TYPE: amino acid
TYPE: procein
SEQUENCE DESCRIPTION: SEQ 1D NO: 6:
     TELECOMMUNICATION INFORMATION
                         TELEPHONE: (206) 587-04:
TELEFAX: (206) 233-0644
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ORGANISM: Homo sapiens
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Matches 235; Conserv
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Best Local S:
Matches 235
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                                                                                                                                                                                                                                                                                                                                                     ADDRESSEE: Stephen L. Malaska, Immunex Corporation
STREET: 51 University Street
CITY: Seattle
STATE: Washington
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Sequence 6, Application US/09983806
Patent No. US20020107365A1
GENERAL INPORMATION:
APPLICANT: Lyman, Stewart D.
TITLE OF INVENTION: Ligands for flt3/flk-2 Receptors
NUMBER OF SEQUENCES: 8
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER: FIRST LIDEY LIDEA COMPUTER: Apple Macintosh OPERATING SYSTEM: Macintosh 7.0.1 SOSTWARER: Microsoft Word, Version #5.1 CURBUT APPLICATION DATA: APPLICATION NUMBER: US/09/983,806 FILING DATE: 25-Oct-2001 CLASSIFICATION SJ0 PRIOR APPLICATION NUMBER: US/08/444,626 FILING DATE: 19-MAY-1995 APPLICATION NUMBER: US/08/162,407 FILING DATE: 0-DEC-1993 APPLICATION NUMBER: 08/106,463 FILING DATE: August 25, 1993 APPLICATION NUMBER: 08/106,463 APPLICATION NUMBER: 08/068,394 FILING DATE: MAURIST 1993 APPLICATION NUMBER: 08/068,394 FILING DATE: MAY 24, 1993 ATTONEY, AGBINGT AND ACCOUNTY AND ACCOUNTY AND ACCOUNTY AND ACCOUNTY AND ACCOUNTY AND ACCOUNTY ACCOUN
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100.0%; Pred. No. 1.1e-102;
iive 0; Mismatches 0;
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REGIGSTRATION WNBER: 32,655
REFERENCE/DOCKET NUMBER: 2813-C
TELECOMMUNICATION INFORMATION:
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MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO: 6:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ZIP: 98101
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
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TYPE: amino acid
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INFORMATION FOR SEQ ID NO: 6:
SEQUENCE CHARACTERISTICS:
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Best Local Similarity 100.
Matches 235; Conservative
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US-10-643-384-2
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Sequence 2, Application US/10643384

Publication No. US20040037845A1

GENERAL INFORMATION:
APPLICANT: Brasel, Kenneth A.
APPLICANT: Lyman, Stewart D.
APPLICANT: Lyman, Stewart D.
APPLICANT: Maraskovsky, Eugene
APPLICANT: Lyman, Hilary J.
APPLICANT: Lyman Hilary J.
APPLICANT: Lyman Hilary J.
APPLICANTON NUMBER: US/10/643,384
CURRENT FILING DATE: 2002-09-11
PRIOR APPLICATION NUMBER: 09/154,903
PRIOR FILING DATE: 1998-10-13
PRIOR APPLICATION NUMBER: 09/154,903
PRIOR APPLICATION NUMBER: 09/154,903
PRIOR APPLICATION NUMBER: 09/154,903
PRIOR FILING DATE: 1996-10-04
NUMBER OF SEQ ID NOS: 2
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100.0%; Score 1242; DB 9; Length 235;
Best Local Similarity 100.0%; Pred. No. 1.1e-102;
Matches 235; Conservative 0; Mismatches 0; Indels 0.
                                                                                                                        GENERAL INFORMATION:
APPLICANT: Graddis, Thomas J.
APPLICANT: Graddis, Thomas J.
APPLICANT: McGrew, Jeffrey T.
TILLE OF INVENTION: FIRST: MYTANTS AND METHODS OF USE
FILE REFERENCE: 03260.0028
CURRENT FILING DATE: 12001-07-16
PRIOR FILING DATE: 1999-07-02
NUMBER OF SEQ ID NOS: 20
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO
                                                                           ; Sequence 1, Application US/09904536; Patent No. US20020111475A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: PRT
// ORGANISM: Homo sapiens
US-09-904-536-1
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61 ASNLODEELCGGLWRLVLAQRWMERLKTVAGSRWQGLLERVNTEIHFVTKCAFQPPPSCL 120
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                                                             Gaps
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Query Match 100.0%; Score 1242; DB 12; Length 235; Best Local Similarity 100.0%; Pred. No. 1.1e-102; Matches 235; Conservative 0; Mismatches 0; Indels 0;
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TITLE OF INVENTION: Ligands for flt3/flk-2 Receptors
NUMBER OF SEQUENCES: 8
CORRESPONDENCE ADDRESS:
ADDRESSE: Stephen L. Malaska, Immunex Corporation
STREET: 51 University Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDIUM TYPE: Floppy disk
COMPUTER: Apple Macintosh
COMPRAINE SYSTEM Macintosh 7.0.1
SOFTWARE: Microsoft Word, Version #5.1
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/095,449
FILING DATE: 13-Mar-2002
CLASSIFICATION: 530
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: 08/669,692
FILING DATE: 24-JUN-1996
APPLICATION NUMBER: US/08/162,407
FILING DATE: December 3, 1593
APPLICATION NUMBER: 08/111,759
FILING DATE: August 25, 1993
APPLICATION NUMBER: 08/106,463
FILING DATE: August 12, 1993
APPLICATION NUMBER: 08/068,394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REGISTRATION NUMBER: 32,655
REFERENCE/DOCKET NUMBER: 2813-C
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TELEPHONE: (206) 587-0430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILLING DATE: May 24, 1993
ATTORNEY/AGENT INFORMATION:
NAME: Malaska, Stephen L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 6, Application US/10095449
Publication No. US20020160004A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LENGTH: 235 amino acids TYPE: amino acid
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INFORMATION FOR SEQ ID NO: 6:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CITY: Seattle
STATE: Washington
COUNTRY: US
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COMPUTER READABLE FORM:
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) ORGANISM: Homo sapiens
US-10-401-364-1
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US-10-314-035-6
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JOSTICA DEPLICATION US/10241927

JUDICATION US CO030113341A1

GENERAL INFORMATION:

APPLICANT: Lynch, David H.

APPLICANT: Borges, Luis

APPLICANT: Miller, Robert B.

TITLE GF INVENTION: THE USE OF FLT3-LIGAND IN THE TREATMENT OF CANCER

FILE REPERBRENCE: 2836-F

CURRENT FILING DATE: 2002-09-11

FRICA PAPLICATION NUMBER: US 09/444,027

PRIOR FILING DATE: 1999-11-19

FRIOR FILING DATE: 1999-11-19

FRIOR FILING DATE: 1999-10-17

FRIOR FILING DATE: 1999-10-19

FRIOR FILING DATE: 1995-10-04

NUMBER: OF SEQ ID NOS: 2

SOFTWARE: PALENTIN VETSION 3.1
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                                                                                                                                                                 1 MTVLAPAWSPTTYLLLLLLLSSGLSGTQDCSFQHSPISSDFAVKIRBLSDYLLQDYPVTV
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                                                                       Length 235;
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Best Local Similarity 100.0%; Pred. No. 1.1e-102;
Matches 235; Conservative 0; Mismatches 0;
                                                                  Query Match
100.0%; Score 1242; DB 13;
Best Local Similarity 100.0%; Pred. No. 1.1e-102;
Matches 235; Conservative 0; Mismatches 0;
SEQUENCE DESCRIPTION: SEQ ID NO: 6:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: PRT
ORGANISM: homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQ ID NO 2
LENGTH: 235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 7
US-10-241-927-2
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US-10-095-449-6
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US-10-314-U3-b

gequence 6, Application US/10314035

publication No. US2003015706941

GENERAL INFORMATION:

APPLICANT ENTORMATION:

APPLICANT ENTORMATION:

APPLICANT SECRMAN, M. Patricia

TITLE OF INVENTION: METHODS OF USING FLT3-LIGAND IN HEMATOPOIETIC CELL TRANSPLANTATION

FILE SEPERANCE: 2813-P

CURRENT APPLICATION NUMBER: US/10/314,035

CURRENT APPLICATION NUMBER: US/80/994,468

PRIOR PILING DATE: 1997-12-19

PRIOR PILING DATE: 1997-62-19

PRIOR FILING DATE: 1994-05-11

SEQ ID NO 5: 8

SOFTWARE: PatentIn version 3.1

SEQ ID NO 6

LENGTH 235
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GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Liebowitz, David N.
APPLICANT: Liebowitz, David N.
TITLE OF INFORMION: METHODS OF USING FLT3-LIGAND IN IMMUNIZATION PROTOCOLS
TITLE OF INFORMION: METHODS OF USING FLT3-LIGAND IN IMMUNIZATION PROTOCOLS
FILE REFERENCE: 3399-B
CURRENT APPLICATION NUMBER: US/10/401,364
CURRENT FILING DATE: 2003-03-26
PRIOR APPLICATION NUMBER: US 60/368,263
PRIOR APPLICATION NUMBER: US 60/427,835
PRIOR FILING DATE: 2002-11-19
NUMBER OF SEQ ID NOS: 4
SOFTWARE: PALENTIN VERSION 3.1
SEQ ID NO 1
LENGTH: 235
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100.0%; Score 1242; DB 14;
Best Local Similarity 100.0%; Pred. No. 1.1e-102;
Matches 235; Conservative 0; Mismatches 0;
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GENERAL INFORMATION:
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APPLICANT: WALTER, SARAH
APPLICANT: CHERLINGTON, JULIE
APPLICANT: CHERLINGTON, JULIE
APPLICANT: CHERLINGTON, JULIE
APPLICANT: SCHILLING JIM
ITILE OF INVENTION: NOVEL BIOMARKERS OF TYROSINE KINASE INHIBITOR EXPOSURE
ITILE OF INVENTION: NO ACTIVITY IN MAMMALS
FILE REFERENCE: 038602/1592
CURRENT APPLICATION NUMBER: US/10/440,464
CURRENT PILING DATE: 2003-05-19
PRIOR PILING DATE: 2003-05-17
PRIOR PILING DATE: 2003-02-24
PRIOR PELLON NUMBER: 60/448,922
PRIOR PELLON NUMBER: 60/448,932
PRIOR PELLON NUMBER: 60/448,934
PRIOR APPLICATION NUMBER: 60/448,934
PRIOR APPLICATION NUMBER: 60/448,934
PRIOR APPLICATION NUMBER: 50/303-02-24
CHERRY PRIOR PORTE: 2003-02-24
CHERRY PRIOR PRIOR PORTE: 2003-02-24
CHERRY PRIOR PORTE: 2003-02-24
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Sequence No. US20020111475A1

GENERAL INFORMATION:

APPLICANT Gradis, Thomas J.

TITLE OF INVENTION: FLI3-L MUTANTS AND METHODS OF USE

TITLE OF ILLING DATE: 2001-07-16

CURRENT APPLICATION NUMBER: PRIOR APPLICATION O9/109,100

PRIOR FILING DATE: 1999-07-02

NUMBER OF SEQ ID NOS: 20

SOFTWARE: Patentin Ver. 2.1

SEQ ID NO 10.
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Pred. No. 3.7e-102;
0; Mismatches 1;
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90.5%; Score 1124; DB 9;
Best Local Similarity 100.0%; Pred. No. 3.2e-92;
Matches 211; Conservative 0; Mismatches 0;
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Best Local Similarity 99.63
Matches 234; Conservative
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COGANISM: Homo sapiens
US-09-904-536-10
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TYPE: PRT

CRGANISM: Homo sapiens
US-10-440-464-60
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US-09-904-536-10
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; Sequence 17.4, Application US/10116275
; Publication No. US2003011476A1
; GENERAL INFORMATION:
    APPLICANT: Ban Pharmaceutical Technology
; APPLICANT: Brayden, David
APPLICANT: Byrne, Dargah
APPLICANT: Byrne, Dargah
APPLICANT: Higgins, Iisa
APPLICANT: Lambkin, Imelda
APPLICA
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                                                                                                                                                                       1 MIVLAPAWSPITYLLILLISSGISGIQDCSFQHSPISSDPAVKIRELSDYLLQDYPVIV
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Query Match 100.0%; Score 1242; DB 16; Length 235; Rest Local Similarity 100.0%; Pred. No. 1.1e-102; Matches 235; Conservative 0; Mismatches 0; Indels 0;
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99.5%; Score 1236; DB 15; Length 235;
Best Local Similarity 99.6%; Pred. No. 3.7e-102;
Matches 234; Conservative 0; Mismatches 1; Indels 0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ) ORGANISM: Homo sapiens
US-10-116-275-174
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us-08-994-468-6.rapb

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; LENGTH: 209
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-904-536-9
                                                                                                                       Similarity
                                                                                                  Query Match
Best Local Simil
Matches 208;
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                                            RLKTVAGSKMQGLLERVNTEIHFVTKCAFQPPPSCLRFVQTNISRLLQETSEQLVALKPW 144
                                                                               RLKTVAGSKMOGLLERVNTEIHFVTKCAFOPPSCLRFVOTNISRLLOETSEQLVALKPW 121
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                                                                                                                       145 ITRONFSRCLELQCQPDSSTLPPPWSPRPLEATAPTAPQPPLLLLLLLFPVGLLLLAAAWC 204
  SGTQDCSFQHSPISSDFAVKIRELSDYLLQDYPVTVASNLQDEELCGGLWRLVLAQRWME 61
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US-09-904-536-9
i Sequence 9, Application US/09904536
i Petent No. US2002111475A1
i GENERAL INFORMATION:
i APPLICANT: Graddis, Thomas J.
i APPLICANT: MGGrew, Joffrey T.
i TITLE OF INVENTION: FL73-L MUTANTS AND METHODS OF USE
FILE REFERENCE: 03260.0028
i CURRENT FILING DATE: 10599904,536
i CURRENT FILING DATE: 1999-07-02
i PRIOR PAPLICATION NUMBER: PRIOR APPLICATION: 09/109,100
pRIOR FILING DATE: 1999-07-02
i NUMBER OF SEQ ID NOS: 20
i SEQ ID NO 9
                                                                                                                                                                                                                                                                                                                              Sequence 18, Application US/09904536
Fatent No. US20020111475A1
GENERAL INFORMATION: Thomas J.
APPLICANT: Graddis, Thomas J.
TITLE OF INVENTION: FLT3-L MUTANTS AND METHODS OF USE
FILE REFRENCE: 03260.0028
FILE REFRENCE: 03260.0028
CURRENT APPLICATION NUMBER: US/09/904,536
CURRENT FILING DATE: 2001-07-16
PRIOR APPLICATION NUMBER: PRIOR APPLICATION: 09/109,100
PRIOR FILING DATE: 209-07-02
NUMBER OF SEQ ID NOS: 20
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 10
                                                                                                                                                                                                      205 LHWQRTRRRTPRPGEQVPPVPSPQDLLLVEH 235
                                                                                                                                                                                                                                           LHWORTRRITPRPGEQVPPVPSPQDLLLVEH 212
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Best Local Similarity 100.
Matches 209; Conservative
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                                                                                             27 TODCSFOHSPISSDFAVKIRELSDYLLQDYPVTVASNLQDEELCGGLWRLVLAQRWMERL
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  Length 209;
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Sequence 12, Application US/09904536

Patent No. US2002111475A1

GENERAL INFORMATION:
APPLICANT Graddis, Thomas J.
APPLICANT: MGGEW, Jeffrey T.
TITLE OF INVENTION: FLID-L MUTANTS AND METHODS OF USE
FILE REFERENCE: 03260.0028

CURRENT APPLICATION NUMBER: US/09/904,536

CURRENT FILING DATE: 2001-07-16

PRIOR FILING DATE: 1999-07-02

NUMBER OF SEQ ID NOS: 20

NUMBER OF SEQ ID NOS: 20

SEQ ID NO 12

LENGTH: 209
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99.5%; Pred. No. 5.5e-91;
cive 0; Mismatches 1;
Score 1110; DB 9;
Pred. No. 5.5e-91;
0; Mismatches 1;
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Job time : 48.2554 secs
     89.4%;
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Best Local Similarity 99.5
Matches 208; Conservative
                                                  Conservative
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ORGANISM: Homo sapiens
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Sequence Sequence

Sequence Sequence Sequence Sequence Sequence Sequence

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Sequence 6, Application US/08243545
; Patent No. 5554512
; GENERAL INFORMATION:
; APPLICANT: Lyman Stewart D.
APPLICANT: Beckmann, M. Patricia
TITLE OF INVENTION: Ligands for flt3/flk-2 Receptors
; NUMBER OF SEQUENCES: 8
; CORRESPONDENCES: 8
; ADDRESSEE: Stephen L. Malaska, Immunex Corporation
STREET: 51 University Street
; STREET: Saatile
; STATE: Washington
; COUNTRY: US
                         US-08-243-545-2
US-08-993-962-2
US-08-669-692-2
US-08-444-626-2
PCT-US94-05365-2
US-08-220-3798-7
PCT-US95-03866-6
US-09-100-100-19
US-09-100-100-19
US-08-317-522A-9
US-08-439-818A-9
US-08-738-975-9
US-08-738-975-9
US-08-728-626-9
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COUNTRY:

COUNTRY READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: Apple Macintcsh
SOFTWARE: Microsoft Word, Version #5.1

CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/243,545

FILING DATE: 11-MAY-1994
CLASSIPTCATION: 435

PRIDG APPLICATION BATA:
APPLICATION NUMBER: 08/162,407

FILING DATE: August 25, 1993
CLASSIPTCATION: 435

FILING DATE: August 25, 1993
CLASSIPTCATION: 435

FILING DATE: August 12, 1993
CLASSIPTCATION: 435

FILING DATE: August 12, 1993
CLASSIPTCATION: A35

FILING DATE: August 12, 1993
CLASSIPTCATION: A35

FILING DATE: August 12, 1993
CLASSIPTCATION NUMBER: 08/068,394

FILING DATE: A35

ATTORNEY AGENT INFORMATION:
NAME: Malaska, Sephen I.

RECISTRATION NUMBER: 32,655

REFERENCE/DOCKET NUMBER: 28,655

REFERENCE/DOCKET NUMBER: 28,655

REFERENCE/DOCKET NUMBER: 28,655

TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION 
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TELEX: 756822
INFORMATION FOR SEQ ID NO: 6: SEQUENCE CHARACTERISTICS: LENGTH: 235 amino acids
RESULT 1
US-08-243-545-6
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Sequence 9, A
Sequence 12,
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1242
1 MIVLAPAMSPITYLLLLLLL......RPGEQVPPVFSPQDLLLVEH 235
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/cgn2_6/ptodata/2/iaa/PcTUS_COMB.pep:*
/cgn2_6/ptodata/2/iaa/PcTUS_COMB.pep:*
                                        GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
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Maximum Match 100%
Listing first 45 summaries
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Gapop 10.0 , Gapext 0.5
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61 ASNLÓDEELCGGLWRLVLAQRWWERLKTVAGSKWQGLLERVNTEIHFVTKCAFOPPPSCL 120
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Sequent No. 6190655
GENERAL INFORMATION
SEQUENCE 6, ASPLICANT: Beckmann, M. Patricia
TITLE OF INVENTION: Ligands for flt3/flk-2 Receptors
NUMBER OF SEQUENCES: 8
GORRESPENDENCE ADDRESS: 8
GORRESPENDENCE ADDRESS: 8
GORRESPENDENCE ADDRESS: 9
GORRESPENDENCE ADDRESS: 1
GORRESPENDENCE ADDRESS: 1
GORRESPENDENCE ADDRESS: 2
ADDRESSER: Stephen L. Malaska, Immunex Corporation
STREET: 51 University Street
CITY: Seatule
STATE: Mashington
COMPUTER: Apple Macintosh
OPERATING SYSTEM: Macintosh
OPERATING SYSTEM: Macintosh
OPERATING SYSTEM: Macintosh
OPERATING SYSTEM: Macintosh
COMPUTER: Apple Macintosh
OPERATING SYSTEM: Macintosh
COMPUTER: Apple Macintosh
COMPUTER: Apple Macintosh
OPERATING SYSTEM: Macintosh
COMPUTER: Apple Macintosh
SOFTARE: May 24, 1993
APPLICATION NUMBER: 08/1064,394
FILING DATE: August 12, 1993
APPLICATION NUMBER: 08/068,394
FILING DATE: May 24, 1993
APPLICATION NUMBER: 32,655
FELECOMMUNICATION INPORMATION:
TELLERAN: (206) 233-0644
TELLECOMMUNICATION INPORMATION:
TELLERAN: 756822
                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                Ouery Match
100.0%; Score 1242; DB 2;
Best Local Similarity 100.0%; Pred. No. 3.9e-117;
Matches 235; Conservative 0; Mismatches 0;
          | INFORMATION FOR SEQ ID NO: 6: SEQUENCE CHARACTERISTICS: |
| INFORMATION 235 amino acids |
| TYPE: amino acid |
| TYPE: amino acid |
| TYPE: TYPE: protein |
| WOLECULE TYPE: protein |
| US-08-993-962-6
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US-09-160-841-6
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Patent No. 5843423
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Lyman, Stewart D.
APPLICANT: Lyman, M. Patricia
TITLE OF INVENTION: Ligands for flt3/flk-2 Receptors
NUMBER OF SEQUENCES:
CORRESPONDENCE ADDRESS:
ADDRESSEE: Stephen L. Malaska, Immunex Corporation
ADDRESSEE: Stephen L. Malaska, Immunex Corporation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADDRESSEE: Stephen L. Malaska, Immunex Corporation
STREET: 51 University Street
CITY: Seattle
STATE: Washington
                                                                                                                                                                               Query Match

100.0%; Score 1242; DB 1;
Best Local Similarity 100.0%; Pred. No. 3.9e-117;
Matches 235; Conservative 0; Mismatches 0;
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, TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-243-545-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ZIP: 98101
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
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US-08-993-962-6
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                                                                                                                                                                                                                                              Gaps
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100.0%; Score 1242; DB 3; Length 235;
Best Local Similarity 100.0%; Pred. No. 3.9e-117;
Matches 235; Conservative 0; Mismatches 0; Indels 0
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100.0%; Score 1242; DB 3; Length 235;
Best Local Similarity 100.0%; Pred. No. 3.9e-117;
Matches 235; Conservative 0; Mismatches 0; Indels 0
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US-08-669-692-6
; Sequence 6, Application US/08669692
; Patent No. 6630143
                                            235 amino acids
amino acid
INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS
                                                                                  // MOLECULE TYPE: protein US-09-160-841-6
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US-09-109-100-1
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61 ASNIQDERICGGIMRLVLAQRWMERLKTVAGSKMQGLLERVNTEIHFVTKCAFQPPPSCL 120
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GENERAL INFORMATION:
APPLICANT: Lyman, Stewart D.
APPLICANT: Beckmann, M. Patricia
APPLICANT: Beckmann, M. Patricia
TITLE OF INVENTION: Ligands for fit3/flk-2 Receptors
NUMBER OF SEQUENCES: 8
CORRESPONDENCE ADDRESS:
ADDRESSES: Stephen L. Malaska, Immunex Corporation
STREET: 51 University Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100.0%; Score 1242; DB 4;
100.0%; Pred. No. 3.9e-117;
Mismatches 0;
                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM:

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: Apple Macintosh

OPERATING SYSTEM: Macintosh 7.0.1

SOFTWARE: Microsoft Word, Version

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/08/669,692

CLASSIFICATION STAN:

APPLICATION NUMBER: US/08/162,407

FILING DATE: December 3, 1993

APPLICATION NUMBER: US/1993

PRIOR APPLICATION NUMBER: US/1993

PRIOR APPLICATION NUMBER: US/106,463

FILING DATE: August 12, 1993

PRIOR APPLICATION NUMBER: 08/106,463

FILING DATE: August 12, 1993

PRIOR APPLICATION NUMBER: US/1993

PRIOR APPLICATION NUMBER: US/1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME: Malaska, Stephen L.
REGISTRATION NUMBER: 32,655
REFERENCE/DOCKET NUMBER: 2813-C
TELECOMUNICATION INFORMATION:
TELEPHONE: (206) 587-0430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                : 235 amino acids
amino acid
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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Best Local Similarity 100.
Matches 235; Conservative
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                                                                                                                                                                                                                                   CITY: Seattle
STATE: Washington
COUNTRY: US
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RESULT 6 US-08-444-626-6 ; Sequence 6, Application US/08444626

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Sequence 6, Application PC/TUS9405365

GENERAL INFORMATION:
APPLICANT: Lyman, Stewart D.
APPLICANT: Lower D.
TITLE OF INVENTIOR: Ligands for flt3/flk-2 Receptors
NUMBER OF SEQUENCES: 8
CORRESPONDENCE ADDRESS:
ADDRESSEE: Stephen L. Malaska, Immunex Corporation
STREET: 51 University Street
CITY: Seattle
STATE: Washington
COUNTRY: US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CURNITY: US

CURNITY: US

CURNITY: US

CURNITY: US

COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
PILING DATE: May 24, 1994
CLASSIFICATION NUMBER: PCT/US94/05365
FILING DATE: May 11, 1994
CLASSIFICATION NUMBER: 08/209,502
FILING DATE: March 7, 1994
CLASSIFICATION NUMBER: 08/209,502
FILING DATE: March 7, 1994
CLASSIFICATION NUMBER: 08/102,407
FILING DATE: March 7, 1993
CLASSIFICATION NUMBER: 08/162,407
FILING DATE: August 25, 1993
CLASSIFICATION NUMBER: 08/111,758
FILING DATE: August 25, 1993
CLASSIFICATION NUMBER: 08/111,758
FILING DATE: August 12, 1993
CLASSIFICATION NUMBER: 08/111,758
FILING DATE: August 12, 1993
CLASSIFICATION NUMBER: 08/106,463
FILING DATE: August 12, 1993
CLASSIFICATION NUMBER: 08/106,463
FILING DATE: August 12, 1993
CLASSIFICATION NUMBER: SHING DATE: August 12, 1993
CLASSIFICATION NUMBER: ELLING DATE: AUGUST 12, 1993
CLASSIFICATION NUMBER: MAY 24, 1993
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NAME: MAJASKA, Stephen L.
REGISTRATION NUMBER: 32,655
REFRENCE/DOCKET NUMBER: 2813-
TELECOMMUNICATION INFORMATION:
TELEPHONE: (206) 233-0644
TELEFAX: (206) 233-0644
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 235 amino acid
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                    PCT-US94-05365-6
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100.0%; Score 1242; DB 4; Length 235;
Best Local Similarity 100.0%; Pred. No. 3:9e-117;
Matches 235; Conservative 0; Mismatches 0; Indels 0
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Beckmann, M. Patricia
TITLE OF INVENTION: Ligands for fit3/flk-2 Receptors
NUMBER OF SEGUENCES: 8
CORRESPONDENCE ADDRESS:
ADDRESSEE: Stephen L. Malaska, Immunex Corporation
STREET: SI University Street
CITY: Seattle
STREET: Stephen L. Malaska, Immunex Corporation
STREET: Souttle
STREET: Stephen L. Malaska, Immunex Corporation
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100.0%; Score 1242; DB 5; Length 235;
Best Local Similarity 100.0%; Pred. No. 3.9e-117;
Matches 235; Conservative 0; Mismatches 0; Indels 0

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61 ASNLODEELCGGLWRLVLAQRWMERLKTVAGSKWQGLLERVNTEIHFVTKCAFQPPSCL 120
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                                                                                                                                               181 APQPPLILILIDVGLILIAAAWCLHWQRTRRRTPRPGEQVPPVPSPQDLILIVEH 235
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                                                                                                                     181 APOPPLILLLILPVGLLLLAAAMCLHWORTRRRTPRPGEOVPPVPSPODLLLVEH 235
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                                                                                                                                                                                                                                                            Sequence 10, Application US/09109100C
Patent No. 6291601
GENERAL INFORMATION:
APPLICANT: Graddis, Thomas J.
APPLICANT: Graddis, Thomas J.
TITLE OF INVENTION: FILD. MUTANTS AND METHODS OF USE
FILE REFERENCE: 03260.0028
CURRENT PAPLICATION NUMBER: US/09/100C
CURRENT PAPLICATION DATE: 1998-07-02
NUMBER OF SEQ ID NOS: 20
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 10
LENGTH: 212
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Sequence 18, Application US/09109100C
Sequence 18, Application US/09109100C
Patent No. 6291661
GENERAL INFORMATION:
APPLICANT: Graddis, Thomas J.
TITLE OF INVENTION: JETT3-L MUTANTS AND METHODS OF USE
TITLE REFERENCE: 03260.0028
CURRENT FILING DATE: 1998-07-02
NUMBER OF SEQ ID NOS: 20
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 18
LENGTH: 209
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ORGANISM: Homo sapiens
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ORGANISM: Homo sapiens
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US-09-109-100-10
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87 KTVAGSKMQGLLERVNTEIHFVTKCAFQPPPSCLRFVQTNISRLLQETSEQLVALKPWIT 146
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TQDCSFQHSPISSDFAVKIRELSDYLLQDYPVTVASNLQDEELCGGLWRLVLAQRWMERL 86
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US-09-109-110-12
Sequence 12, Application US/09109100C
Sequence 12, Application US/09109100C
Patent No. 6291661
GENERAL INFORMATION:
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APPLICANT: Graddis, Thomas J.
APPLICANT: Graddis, Thomas J.
APPLICANT: MCSTEW, Telfrey T.
TITLE OF INVENTION: FLT3-L MUTANTS AND METHODS OF USE
FILE REFERENCE: 03260.0028
CURRENT APPLICATION NUMBER: US/09/109,100C
CURRENT FILING DATE: 1998-07-02
NUMBER OF SEQ ID NOS: 20
SOFTWARE: Patentin Ver. 2.1
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Patent No. 6291661
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ORGANISM: Homo sapiens
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                                                                                                                     27 TODCSFOHSPISSDFAVKIRELSDYLLODYPVTVASNLODEELCGGLWRLVLAQRWMERL
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                                                            Length 209;
                                                                                         Indels
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Patent No. 6291661

GENERAL INFORMATION:
APPLICANT: Geaddis, Thomas J.
APPLICANT: McGrew, Jeffrey T.
TITLE OF INVENTION: FLIA-L MUTANTS AND METHODS OF USE
FILE REFERENCE: 03260.0026

CURRENT APPLICATION NUMBER: US/09/109,100C

CURRENT FILING DATE: 1998-07-02

NUMBER OF SEQ ID NOS: 20

SOFTWARE: PatentIN Ver. 2.1

LENGH: 209
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Patent No. 6291661
GENERAL INFORMATION:
APPLICANT: Graddis, Thomas J.
APPLICANT: Graddis, Thomas J.
APPLICANT: MCGrew, Jeffrey T.
TITLE OF INVENTION: FLI3-L MUTANTS AND METHODS OF USE
                                                         Score 1110; DB 3;
Pred. No. 6.5e-104;
0; Mismatches 1;
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                                                              99.4%;
                                                            Query Match
Best Local Similarity 99.5%
Matches 208; Conservative
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ORGANISM: Homo sapiens
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-109-100-12
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US_09-109-100-17
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US-09-109-100-14
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Matches 208
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Pred. No. 1e-103;
1; Mismatches 0; Indels
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APPLICANT: Graddis, Thomas J.
APPLICANT: McGrew, Jeffrey T.
TITLE OF INTENTION: FLT3-L MUTANTS AND METHODS OF USE
FILE REFERENCE: 03260,0028
CURRENT APPLICATION NUMBER: US/09/109,100C
CURRENT FILING DATE: 1998-07-02
SOFTWARE: Patentin Ver. 2.1
                                                                                                                                                                                                                                   Score 1110; DB 3;
Pred. No. 6.5e-104;
1; Mismatches 0;
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FILE REFERENCE: 03260.0026
CURRENT PEDILGATION NUMBER: US/09/109,100C
CURRENT FILING DAIE: 1998-07-02
NUMBER OF SEQ ID NOS: 20
SOFTWARE: PALENTIN VET: 2.1
SEQ ID NO 17
LENGTH: 209
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GENERAL INFORMATION:
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ilarity 99.5%;
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Best Local Similarity 99.5%;
Matches 208; Conservative
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                                                                                                                                                     TYPE: PRT
CORGANISM: Homo sapiens
US-09-109-100-17
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Matches 208; Conserv
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US-09-109-110-11
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RESULT

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us-08-994-468-6.rai
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87 KTVAGSKWOGLLERVNTEIHFVTKCAFOPPPSCLRFVOTNISRLIGETSEQLVALKFWIT 146
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Best Local Similarity 99.5%; Pred. No. 1e-103;
Matches 208; Conservative 0; Mismatches 1; Indels
   Sequence 15, Application US/09109100C

Patent No. 6291661

GENERAL INFORMATION:
PAPLICANT: Graddia, Thomas J.
TITLE OF INVENTION: FLT3-L MUTANTS AND METHODS OF USE
FILE REFERENCE: 03260.0028

CURRENT PILING DATE: 1998-07-02

NUMBER OF SEQ ID NOS: 20

SOFTWARE: PatentIN Ver. 2.1

SEQ ID NO 15

LENGTH: 209
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Search completed: April 8, 2004, 17:09:11 Job time : 22.0734 secs

Sequence:

Run on:

Searched:

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C;Species: Homo sapiens (man)
C;Daccession: 138440; 139075; 843292
R;Lyman, S.D.; James, L.; Johnson, L.; Brasel, K.; de Vries, P.; Escobar, S.S.; Downey, Blood 83, 2795-2801, 1994
A;Title: Cloning of the human homologue of the murine flt3 ligand: a growth factor for e. A;Reference number: 138440; MUID:94235842; PMID:8180375
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A;Molecule type: mRNA
A;Molecule type: mRNA
A;Residues: 1-23 <RES>
A;Cross-references: EMBL:U01858; NID:9494978; PIDN:AAA19825.1; PID:9494979
B;Lyman, S.D.; Stocking, K.; Davison, B.; Fletcher, F.; Johnson, L.; Escobar, S. Oncogene 11, 1165-1172, 1995
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1 QDCSFQHSPISSDFAVKIRE......LKPWITRQNFSRCLELQCQP 133
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Copyright (c) 1993 - 2004 Compugen Ltd.
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Listing first 45 summaries
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C, Accession: 1390 R, Lyman, S.D.; St Oncogene 11, 1165 A, Title: Structur A, Reference numbe	sion: 139076 S.D.; Stocking, 1 le 11, 1165-1172, 1; structural analy: sion: 139077	9076 Stocking 55-1172, rral and ber: 135	75;	Dav:	bavison, B.;]	Fletcher, F.; murine flt3 li; PMID:7566977	'., Johnson, L.; Escobar, 1ligand genomic loci.	o
A,Status: preliminary; t A,Molecule type: DNA A,Residues: 1-178 <res></res>	prelir le type es: 1-1	ninary; : DNA 78 <res;< td=""><td>Y; translated ES></td><td>ated 74:</td><td>from AID:01</td><td>GB/EMBL/DDBJ 072036: PIDN:AAA90950</td><td>0950.1: PID:d1072038</td><td></td></res;<>	Y; translated ES>	ated 74:	from AID:01	GB/EMBL/DDBJ 072036: PIDN:AAA90950	0950.1: PID:d1072038	
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Query Match Best Local Matches 133	Match ocal Sir s 133;	n Similarity 33; Conserv	100 100 rative	**	Score 701; Pred. No. 0; Mismatch	DB 2; 9.8e-66; es 0;	Length 178; Indels 0; Gaps	., 0
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Cyaccession: IS8343 "Logarous, to bowney, H.; de Vries, P.; Brasel, K.; Stocking, I. Styring, I. Styring, 1955 "Affile: Identification of soluble and membrane-bound isoforms of the murine flt3 ligance A; Reference number: IS8343; MUID:95124710; PMID:7824267
                                       C;Species: Mus musculus have mouse)
C;Species: Mus musculus (house mouse)
C;Accession: 84291
C;Accession: 84291
C;Accession: 64294
B;Annum, C; Culpepper, J; Campbell, D; McClanahan, T; Zurawski, S; Bazan, J.F.; Ki felt, A; Muench, M; Kelner, G; Namikawa, R; Rennick, D; Roncarolo, M.G; Zlotnik, i Nature 368, 643-648, 1994
A;Title: Ligand for FLT3/FLKZ receptor tyrosine kinase regulates growth of haematopoiet: A;Reference number: 843291
A;Accession: 843291
A;Accession: 843291
A;Accession: Speciminary
A;Molecule type: mRNA
A;Residues: 1-220 cHAN>
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C;Species: Mus musculus (house mouse)
C;Date: 13.-Jan-1995 #sequence revision 13.-Jan-1995 #text_change 08-Oct-1999
C;Accession: A49265; 149347; I49346; S43290
R;Lyman, S.D.; James, L.; Vanden Bos, T.; de Vries, P.; Brasel, K.; Gliniak, B.; Holling
D.; Williams, D.E.; Beckmann, M.P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  62 VAGSKMOGLLERVNTEIHFVTKCAFOPPSCLRFVOTNISRLLOETSEQLVALKPWITR- 120
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/Species: Mus sp. (mouse)
/bate: 26-Jul-1996 #sequence_revision 26-Jul-1996 #text_change 05-Nov-1999
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Local Similarity 73.9%; Pred. No. 1.8e-45;
tes 99; Conservative 12; Mismatches 21; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                72.5%; Score 508; DB 2; Length 22 clarity 73.9%; Pred. No. 1.8e-45; Conservative 12; Mismatches 21; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Status: preliminary; translated from GB/EMBL/DDBJ A;Molecule type: mRNA A;Residues: 1-220 <RES>
                        FLT3/FLK2 ligand (clone T118) - mouse
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                                                      A; Accession: 139075
A; Status: preliminary; translated from GB/EMBL/DDBJ
A; Molecule: 1205 ARE2
A; Residues: 1-225 ARE2
A; Recaidues: 1-225 ARE2
A; Cross-references: EMBL:U29874; NID:g1072036; PIDN:AA90949.1; PID:g1072037
A; Cross-references: EMBL:U29874; NID:g1072036; PIDN:AA90949.1; PID:g1072037
A; Cross-references: EMBL:U29874; NID:g1072036; PIDN:AA90949.1; PID:g1072037
A; Hannum, C.; Culpepper, J.; Campbell, D.; McClanahan, T.; Zurawski, S.; Bazan, J.F.; Kafelt, A.; Muench, M.; Kelner, G.; Namikawa, R.; Rennick, D.; Roncarolo, M.G.; Zlotnik, A. ATILIE: Ligand for PID7/FLKZ receptor tyrosine kinase regulates growth of haematopoieti A; Reference number: 543290; MUID:94195428; PMID:8145851
A; Reference number: 543290
A; Reference number: 543290; MUID:94195428; PMID:8145851
A; Residues: 1-71, A, 73-235 CHAN
A; Residues: 1-71, A, 73-235 CHAN
A; Cross-references: GB:U04806; NID:9483844; PIDN:AAA17999.1; PID:g483845
A; Note: the authors translated the codon AGT for residue 25 as Met
C; Genetics:
A; Introns: 11/3; 48/3; 66/3; 114/3; 161/1; 220/3
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S41293
C:FIT2/FLX2 ligand (clone S109) - human
C:Species: Homo sapiens (man)
C:Date: 20-Oct-1994 #sequence_revision 10-Nov-1995 #text_change 17-Mar-1999
C:Accession: 813293
R;Hannan, C:, Culpepper, J:, Campbell, D.; McClanahan, T.; Zurawski, S.; Bazan, J.F.; Kafelt, A.; Muench, M.; Kelner, G.; Namikawa, R.; Rennick, D.; Roncarolo, M.G.; Zlotnik, A. Aritle: Ligand for FIT3/FLX2 receptor tyrosine kinase regulates growth of haematopoietil A;Reference number: S43293
A;Tutle: Ligand for MID:94195428; PMID:8145881
A;Accession: S43293
A;Accession: S43293
A;Accession: S43290; MUID:94195428; PMID:8145881
A;Accession: Ligand for Eliminary
A;Molecule type: mRNA
A;Residues: 1-245 <HAN>
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A,Title: Structural analysis of human and murine flt3 ligand genomic loci
A,Reference number: 139075, MUID:96032581; PMID:7566977
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al Similarity 99.1%; Score 695; DB 2; Length 24;
al Similarity 99.2%; Pred. No. 6.1e-65;
132; Conservative 0; Mismatches 1; Indels
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P49771 homo sapien
P49772 mus musculu
P55854 synechocyst
Q52861 helicobacte
Q92gvo xickettsia
Q93ggl staphylococ
Q99wb0 staphylococ
Q99wb0 staphylococ
P24575 burkholderi
Q9cwi mus musculu
P18549 streptomyce
P2329 gallus gall
Q9cgh4 vibrio chol
P09264 varicella-z
Q8dhj6 squlcosami
P36312 cowpea seve
C43422 homo sapien
Q9166 xenopus lae
P56000 helicobacte
C43422 homo sapien
Q914805 homo sapien
Q91755 mus musculu
Q01755 mus musculu
Q01755 mus musculu
Q01759 bacteriopha
Q01259 bacteriopha
P53086 saccharomyc
Q90259 bacteriopha
P2312 escherichia
                                                                                                                                                  April 8, 2004, 16:59:26 ; Search time 7.22826 Seconds (without alignments) 958.091 Million cell updates/sec
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701
1_QDCSFQHSPISSDFAVKIRE.......LKPWITRQNFSRCLELQCQP_133
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GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
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KSGA, RICCN
KSGA, STAAN
TRAGA BURCE
PS2K, MOUSE
CEPD, STRCE
OEDD, ST
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Maximum Match 100%
Listing first 45 summaries
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                                                                                                   - protein search, using sw model
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Gapop 10.0 , Gapext 0.5
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seg length: 200000000
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Maximum DB
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TVAGSKNQGLLERVNTRIHFVTKCAFOPPPSCLRFVQTNISRLLQETSEQLVALKPWITR 120
QDCSFQHSPISSDFAVKIRELSDYLLQDYFVTVASNLQDEELCGGLWRLVLAQRWMERLK
                                                                TVAGSKMOGLLERVNTEIHFVTKCAFOPPPSCLRFVQTNISRLLQETSBQLVALKPWITR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Lyman S.D., James L., Vanden Bos T., Devries P., Brasel K., Glinlak B., Hollingsworth L.T., Picha K.S., McKenna H.J., Splett R.R., Fletcher F.A., Maraekovsky E., Farrah T., Foxworthe D., Williams D.B., Beckmann M.P., Farrah T., "Molecular cloning of a ligand for the fit3/flk-2 tyrosine kinase receptor: a proliferative factor for primitive hematopoietic cells."; (ell 75:1157-1167(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A., AND ALTERNATIVE SPLICING.
MEDLINE=95124710; PubMed=7824267;
Lyman S.D., James L., Escobar S., Downey H., de Vries P.,
Lyman S.D., Stocking K., Beckmann M.P., Copeland N.G.,
Cleveland L.S.;
"Identification of soluble and membrane-bound isoforms of the murine
fill ligand generated by alternative splicing of mRNAs.";
Oncogene 10:149-157(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         McClanahan T., Culpepper J., Campbell D., Wagner J.,
Franz-Bacon K., Mattson J., Tsai S., Luh J., Guimares M.J.,
Mattei M.-G., Rosnet O., Birnbaum D., Hannum C.;
Submitted (ARR-1996) to the EMBL/GenBank/DDB databases.
-!- FUNCTION: Stimulates the proliferation of early hematopoietic
cells. Synergizes well with a number of other colony stimulating
factors and interleukins.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               "Structural analysis of human and murine flt3 ligand genomic loci."; Oncogene 11:1165-1172(1995).
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                                                                                                                                                                                                                                                                   SL cytokine procursor (Fms-related tyrosine kinase 3 ligand) (Flt3) (Flt31). FLT31G OR FLT31.
                                                                                                                                                                                                                                                                                                                                 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE=941954.28; PubMed=8145851; MEDLINE=941954.28; PubMed=8145851; Maclanahan T., Zurawski S. Hannum C., Culpepper J., Campbell D., McClanahan T., Zurawski S. Bazan J.F., Kastelein R., Hudak S., Wagner J., Mattson J., Luh J Duda G., Martina N., Peterson D., Menon S., Shanafelt A., Luh Wuench M., Kelner G., Namikawa R., Rennick D., Roncarolo M.G., Zlotnik A., Rosnet O., Dubreuil P., Birnbaum D., Lee F.; "Ligand for FITJ/FLK2 receptor tyrosine kinase regulates growth haematopoletic stem cells and is encoded by variant RNAs.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE=96032581; PubMed=7566977;
Lyman S.D., Stocking K., Davison B., Fletcher F., Johnson L.,
Escobar S.;
                                                                                                                                                                                                       FL3L MOUSE STANDARD; PRT; 232 AA. P49772; Q64085; C1-0CT-1996 (Rel. 34, Created) CCT-1996 (Rel. 34, Last sequence update) 10-0CT-2003 (Rel. 42, Last annotation update)
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                                                                                                                                                                                                      232 A.A.
                                                                                                                                                                                                      PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE=94084791; PubMed=7505204;
                                                                                                     ONFSECLELOCOP 133
                                                                                                                                 ONFSRCLELOCOP 160
                                                                                                                                                                                                      STANDARD;
                                                                                                                                                                                                                                                                                                                       Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
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                  28
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                                                                                                                                                                            RESULT
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                                                        This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the ENBLO utstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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DSSTLPPPWSPRPLEATA -> VETVFHRVSODGLDLLTS
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GO; GO:0005625; C:soluble fraction; TAS.
GO; GO:0008284; P:posttive regulation of cell proliferation; TAS.
GO; GO:0007165; P:signal transduction; TAS.
InterPro; IPR004213; Plt3 lig.
Fram; PFRO2947; flt3 lig.
Cytokine; Glycoprotein; Transmembrane; Alternative splicing; Signal;
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N-LINKED (GLCNAC. . .) (POTENTIAL)
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EXTRACELLULAR (POTENTIAL).
POTENTIAL.
CYTOPLASMIC (POTENTIAL).
                              IsoId=P49771-2; Sequence=VSP_004251, VSP_004252;
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/FTIdarVSP 004251.
Missing (In isoform 2).
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G -> A (IN REF. 1).
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Pred. No. 8.1e-66;
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    IsoId=P49771-1; Sequence=Displayed;
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EMBL; U25874; AAA90550.1; --
EMBL; U29874; AAA90550.1; --
PIR; I38440; I38440.
PIR; I39076; I33076.
PDS; IETE; 09-UUN-00.
Genew; HGNC:3766; FLT3LG.
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                     Synonyms=Soluble;
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235 AA;
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Q86BP3 Q86BP3 Q9V158 Q86HM7 O57849 O57849 Q94066 Q94066 Q94068 Q86PB8 Q83CR1 Q89CPB Q9W771 Q8W771 Q8W771

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1 QDCSFQHSPISSDFAVKIRE.....LKPWITRQNFSRCLELQCQP 133
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                                                 OM protein - protein search, using sw model
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Gapop 10.0 , Gapext 0.5
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1: sp_archea:*
2: sp_bacteria:*
4: sp_human:*
5: sp_invertebrate:*
6: sp_mammal:*
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ALIGNMENTS

Pred. No. is the number of regults predicted by chance to have a score greater than or equal to the score of the regult being printed, and is derived by analysis of the total score distribution.

		Description	Q865z3 papio cynoc	Q9mzu9 felis silve	Q9mzv0 canis famil	Q9gkeO bos taurus	Q8wnwl bos taurus	Q61104 mus musculu	Q8vch4 mus musculu	Q9gkd9 bos taurus	Q7z6n5 homo sapien	Q803il brachydanio	Q84kc6 hordeum vul	Q7wem8 bordetella	Q7w3a9 bordetella	Q7vu45 bordetella	Q8kr32 yersinia ps	Q9p2d0 homo sapien
SUMMARIES		ID	Q865Z3	602M6Ö	O9MZV0	Q9GKE0	Q8WNW1	Q61104	Q8VCH4	O9GKD9	Q726N5	Q80311	Q84KC6	Q7WEM8	Q7W3A9	Q7VU45	Q8KR32	Q9P2D0
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MEDLINE=2036971; PubMed=10902925;

MEDLINE=2036971; PubMed=10902925;

Tang S., Sim G.K.;

Theorea of similarity to the human and mouse homologue but uniquely long cytoplasmic domain.";

DNA Seq. 11:163-166 (2000)

EMBL; AF155149; AAF97089.1; -.

R RSP; PR9771; IETE.

GO; GO:0016020; C:membrane; IEA.

R GO; GO:0016020; C:membrane; IEA
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"Molecular cloning of canine and feline flt3 ligand reveals high
"Molecular cloning of canine and feline flt3 ligand reveals high
degree of similarity to the human and mouse homologue but uniquely
long cytoplasmic domain.";

EMBL; AF155148; ARF87088.1; -.

HSSP; P49771; LETE.

GO: GO: 0016020; C: membrane; IEA.

GO; GO: 0005125; F: cytokine activity; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Flt3 ligand.
Felis silvestris catus (Cat).
Bukaryota, Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Eutheria; Carnivora; Fissipedia; Felidae; Felis.
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Canis familiaris (Dog).
Eukaryotza, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalia, Eutheria, Carnivora, Fissipedia, Canidae, Canis.
NCBI_TaxID=9615;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 82.9%; Score 581; DB 6; Length 291; Best Local Similarity 84.1%; Pred. No. 2.6e-57; Matches 111; Conservative 5; Mismatches 16; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                01-007-2000 (TrEMBLrel. 15, Created)
01-00T-2000 (TrEMBLrel. 15, Last sequence update)
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
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01-OCT-2000 (TrEMBLrel. 15, Created)
01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
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MEDLINE=20358731; PubMed=10902925;
148 QNFSGCLELQCQP 160
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                                                                                                                                                                                                                                                                                                                                                                                    62 VAGSKWQGLIERVNTEIHFVTKCAFQPPSCLRFVQTNISRLLQBTSEQLVALKFWITRQ 121
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MEDIJINE=20570936; PubMed=11120823;
MEDIJINE=20570936; PubMed=11120823;
Mangil W., Brown W.C., Palmer G.H.;
"Identification of feral laver tyrosine kinase 3 (Flt3) ligand domain
required for receptor binding and function using naturally occurring
ligand isoforms.",
J. Immunol. 165:6966-6974(2000).
EMBL; AF202985; AAF99322.1; -.
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                                                                                                                                                                                                                                                          2 DCSFQHSPISSDFAVKIRELSDYLLQDYPVTVASNLQDEELCGGLWRLVLAQRWMERLKT
                                                                                                                                                                                                                                                                                                                   29 DCSFSHSPISSTFAVTIRKLSDYLLQDYPVTVASNLQDDELCGAFWRLVLAQRWWVRLQA
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01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
01-MAR-2003 (TrEMBLrel. 24, Last annotation update)
01-JUN-2003 (Solomine).
Fit3 ligand isoformin.
Bos taurus (Bovine).
Busaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Cetartiodactyla, Ruminantia; Pecora; Bovoidea,
NORI_TaxID=9913;
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0
                                                                                                                         Length 294;
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                                                                                                                      Query Match 82.9%; Score 581; DB 6; Length 29
Best Local Similarity 84.1%; Pred. No. 2.6e-57;
Matches 111; Conservative 7; Mismatches 14; Indels
InterPro, IPR004213; Flt3 lig. Pfam; PF02947; flt3 lig; SEQUENCE 294 AA; 32394 MW; 6859917A3B74ABCD CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GO; GO:0016020; C:membrane; IEA.
GO; GO:0005125; F:cytokine activity; IEA.
Interpro; IPRO04213; FIL3 lig.
Pfam; PFC2947; flL3 lig; 1.
SEQUENCE 292 AA; 323390 NW; D68B9ED79221202D CRC64;
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Mature wi Human flt Human flt Human flt Full leng Human Flt Human Flt

C neoform Secreted Human Flt Human flt Amino aci Human Flt Microsate

Ruman filt Firt-3 and Chimeric Chimeric Human filt Chimeric Chimeric Chimeric Dimeric Human filt Human filt G-CSF-FIL G-CSF-FIL Human filt Human filt

G-CSF/IgG Flt3L 1-1 Chimeric Trimeric

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Aaw78008 Trimeric
Aaw78006 Trimeric
Aaw78118 Trimeric
                                                                                                                                                                                                                                                                                                                                                                      Haematopoletic receptor agonist; flt3 receptor agonist; flt3 ligand; human; chimeric protein; stem cell expansion; tumour; infection; autoimmune disease; haematopoietic disorder; therapy; dendritic cell; pMON32329.pep.
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AAR67541
AAY697169
AAB20192
ABB08129
AB013109
AAC19091
AAC79949
ABC79949
ABC74239
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AAW83299
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AAW77910;
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Aaw79036 Human E
Aaw77911 Human E
Aaw77913 Human E
Aaw69035 Human E
Aaw69037 Human E
Aaw69037 Human E
Aaw77926 Flt3 li
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Aaw69049 Human E
Aaw69049 Human E
Aaw69049 Human E
Aaw77925 Flt3 li
Aaw77927 Flt3 li
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701
1 QDCSFQHSPISSDFAVKIRE......LKPWITRQNFSRCLELQCQP 133
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    GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd
                                                                                                                    of hits satisfying chosen parameters:
                                                                                                        1586107 seqs, 282547505 residues
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Listing first 250 summaries
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AAW77782
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Gapop 10.0 , Gapext 0.5
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11: geneseqp1980s:*
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63 TVAGSKMQGLJERVNTEIHFVTKCAFQPPPSCLRFVQTNISRLLQETSEQLVALKFWITR 122
                                                                                                                                                                                                         Protein pMON32341.pep is a a human flt3 ligand encoded by plasmid pMON32341 (see AAV55205), and is suitable for expression in Escherichia coll: The invention relates to multi-functional chimeric haematopoietic receptor agonists (see e.g. AAW77780-822) that may include flt3 receptor agonists comprising sequence rearranged flt3 ligand (see AAV77782). These novel chimeric agonists can be used to stimulate the production of haematopoietic cells in a patient, for the ex vivo expansion of haematopoietic cells, for the production of dendritic cells and to treat haematopoietic disorders, tumours, infection or autoimmune diseases
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                                                                            Multi-functional chimeric haematopoietic receptor agonist - useful
treat haematopoietic disorders, tumours, infections or autoimmune
diseases.
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; Pred. No. 2.4e-76;
0; Mismatches 0; Indels C
Woulfe SL;
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  Minster NI,
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Minnerly JC;
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  Minnerly JC,
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Matches 133; Conservative
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Woulfe SL, Minster NI,
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N-PSDB; AAV69034.
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Streeter PR,
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autoimmune disease; haematopoietic disorder; therapy; dendritic cell;
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Best Local Similarity 100.0%; Score 701; DB 2; Length 135;
Best Local Similarity 100.0%; Pred. No. 2.4e-76;
Matches 133; Conservative 0; Mismatches 0; Indels
                                                                              Staten NR;
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                                                                              Summers NL, SI
NI, Woulfe SL;
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                                                                              Mckearn JP,
JC, Minster
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  96US-0029629P.
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Minnerly
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N-PSDB; AAV55203.
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25-OCT-1996;
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Sequence 10, Appl
Sequence 10, Appli
Sequence 6, Appli
Sequence 1, Appli
Sequence 1, Appli
Sequence 2, Appli
Sequence 2, Appli
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Sequence 12, Appl
Sequence 14, Appl
                                                                                           April 8, 2004, 17:07:57 ; Search time 26.7446 Seconds (without alignments) 1307.583 Million cell updates/sec
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Sequence 2,
Sequence 6,
Sequence 2,
Sequence 6,
Sequence 1,
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701
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1: /cgn2_6/ptodata/1/pubpaa/US07_PUBCOMB.pep:*
2: /cgn2_6/ptodata/1/pubpaa/PCT_MBW_PUB_Pep:*
3: /cgn2_6/ptodata/1/pubpaa/US06_NBW_PUB_Pep:*
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18: /cgn2_6/ptodata/1/pubpaa/US108_PUBCOMB.pep:*
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18: /cgn2_6/ptodata/1/pubpaa/US108_PUBCOMB.pep:*
GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
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US-09-904-536-18
US-09-904-536-10
US-08-994-468-6
US-09-944-378-1
US-10-904-536-1
US-10-643-384-2
US-10-643-384-2
US-10-643-384-6
US-10-134-035-6
US-10-314-035-6
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Maximum Match 100%
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length: 2000000000
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Sequence 11, Appl
Sequence 15, Appl
Sequence 13, Appl
Sequence 13, Appl
Sequence 14, Appl
Sequence 23, Appl
Sequence 23, Appl
Sequence 23, Appl
Sequence 24, Appl
Sequence 24, Appl
Sequence 2, Appl
Sequence 26, Appl
Sequence 26, Appl
Sequence 26, Appl
Sequence 7085, Appl
Sequence 7085, Appl
Sequence 7085, Appl
     Sequence 17,
9 US-09-904-536-17

9 US-09-904-536-11

15 US-10-116-5276-174

15 US-10-440-464-60

9 US-09-904-536-13

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Sequence 1, Application US/10053355A

Sequence 1, Application US/20030077824A1

GENERAL INFORMATION:
GENERAL INFORMATION:
GENERAL INFORMATION:
TITLE OF INVENTION: Small Molecule Drug Discovery
TITLE OF INVENTION: 2002-06-18
CURRENT APPLICATION NUMBER: US/10/053,355A
CURRENT FILING DATE: 2002-06-18
REION FILING DATE: 2001-08-31
NUMBER OF SEQ ID NOS: 42
SOFTWARE: PatentIn version 3.1
SEQ ID NO 1
IENGTH: 156
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Best Local Similarity 100.
Matches 133; Conservative
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ORGANISM: Homo sapiens
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1 ODCSFOHSPISSDFAVKIRELSDYLLQDYPVTVASNLQDEELCGGLWRLVLAQRWMERLK

63 TVAGSKONQGLLERVNTEIHFVTKCAPQPPPSCLRFVQTNISRLLQETSEQLVALKPWITR

ONFSRCLELQCQP 133

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TVAGSKMOGLLERVNTEIHFVTKCAFOPPSCLRFVQTNISRLLQETSEQLVALKPWITR

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125 QNFSRCLELQCQP 137
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US-08-994-468-6
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US-09-448-378-1
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                                                                  Sequence 18, Application US/09904536
Patent No. US2020111475A1
GENERAL INFORMATION:
APPLICANT: Graduls, Thomas J.
APPLICANT: Graduls, Thomas J.
TILE OF INVENTION: FLT3-L MUTANTS AND METHODS OF USE
FILE REPERENCE: 03260.0028;
CURRENT APPLICATION NUMBER: US/09/904,536
CURRENT FILING DATE: 2001-07-16
PRIOR FILING DATE: 1999-07-02
NUMBER OF SEQ ID NOS: 20
SOFTWARE: PatentIn Ver. 2.1
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Sequence 10, Application US/09904536
GENERAL INFORMATION:
APPLICANT: Graddis, Thomas J.
APPLICANT: McGrew, Jeffrey T.
TITLE OF INVENTION: FIT3-L MUTANTS AND METHODS OF USE
FILE REFERENCE: 02260.0028
CURRENT APPLICATION NUMBER: US/09/904,536
CURRENT FILING DATE: 2001-07-16
PRIOR APPLICATION NUMBER: PRIOR APPLICATION NU
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Best Local Similarity 100.0%; Pred. No. 2.9e-74;
Matches 133; Conservative 0; Mismatches 0;
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Best Local Similarity 100.0%; Pred. No. 2.9e-74;
Matches 133; Conservative 0; Mismatches 0;
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SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 10
LENGTH: 212
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ORGANISM: Homo sapiens
US-09-904-536-10
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COGANISM: Homo sapiens
US-09-904-536-18
RESULT 2
US-09-904-536-18
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61 TVAGSKMOGLLERVNTEIHFVTKCAFOPPSCLRFVOTNISRLLOETSEOLVALKFWITR 120
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Sequence 6, Application US/08994468
| Publication No. US20030148516A1
| Publication No. US20030148516A1
| GENERAL INFORMATION:
| APPLICANT: Lyman, Stewart D. |
| TILE OF INVENTION: Ligands for flt3/flk-2 Receptors |
| NUMBER OF SEQUENCES: 8
| CORRESPONDENCE ADDRESS: Stephen L. Malaska, Immunex Corporation |
| STREET: SI University Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%; Score 701; DB 8; Length 235; 100.0%; Pred. No. 3.3e-74;
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COMPUTER: READBABLE FORM:

MEDIUW TYPE: Floppy disk
COMPUTER: Apple Macintosh
OPERATING SYSTEM: Macintosh 7.0.1
SOFTWARE: Microsoft Word, Version #5.1
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/994,468
FILING DATE: 19-Dec-1997
CLASSIFICATION -CUNCOWN-
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/162,407
FILING DATE: CUNCOWN-
APPLICATION NUMBER: 08/162,407
FILING DATE: AUGUST 25, 1993
APPLICATION NUMBER: 08/106,463
FILING DATE: AUGUST 25, 1993
APPLICATION NUMBER: 08/106,463
FILING DATE: AUGUST 25, 1993
APPLICATION NUMBER: 08/068,394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Mismatches
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TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MOLECULE TYPE: protein ; SEQUENCE DESCRIPTION: SEQ ID NO: 6: US-08-994-468-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATTORNEY/AGENT INFORMATION:
NAME: Malaska, Stephen L.
REGISTRATION NUMBER: 32,655
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEPHONE: (206) 587-04
TELEFAX: (206) 233-0644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE CHARACTERISTICS
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INFORMATION FOR SEQ ID NO: 6:
                                                                                                                                                                                                                                                                                    CITY: Seattle
STATE: Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               QNFSRCLELQCQP 133
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Matches 133; Conservative
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Gaps

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Indels

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88 TVAGSKMQGLLERVNTEIHFVTKCAFQPPSCLRFVQTNISRLLQSTSEQLVALKFWITR 147
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 ODCSFQHSPISSDFAVKIRELSDYLLQDYPVTVASNLQDEELCGGLWRLVLAQRWMERLK 60
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Patent No. US20020111475A1

GENERAL INFORMATION:
APPLICANT Gradia: Thomas J.
APPLICANT Gradia: Thomas J.
TITLE OF INVENTION: FLI3-L MUTANTS AND METHODS OF USE
FILE REFERENCE: 03260.0028
CURRENT FILING DATE: 2001-07-16
PRIOR PILING DATE: 1999-07-02
NUMBER OF SEQ ID NOS: 20

SOFTWARE: Patentin Ver. 2.1
SEQ ID NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 100.0%; Score 701; DB 9; Best Local Similarity 100.0%; Pred. No. 3.3e-74; Matches 133; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 100.0%; Pred. No. 3.3e-74;
Matches 133; Conservative 0; Mismatches 0;
                                                                                             | TELEX: 756822 | TELEX: 75682
                    TELECOMMUNICATION INFORMATION
TELEPHONE: (206) 587-043
TELEFAX: (206) 233-0644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 2, Application US/10643384 Publication No. US20040037845Al GENERAL INFORMATION:
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TYPE: PRT
CRGANISM: Homo sapiens
US-09-904-536-1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            88 TVAGSKMOGLIERVNTEIHFVTKCAFOPPSCLRFVOTNISKLLOETSEOLVALKPWITR 147
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Patent No. US/20020107365A1
GENERAL INFORMATION:
APPLICANT: Lyman, Stewart D.
Beckmann, M. Patricia
TITLE OF INVENTION: Ligands for flt3/flk-2 Receptors
NUMBER OF SEQUENCES: 8
CORRESPONDENCE ADDRESS: 8
CORRESPONDENCE ADDRESS: CORPORT INMUNEX Corporation
STREET: 51 University Street
Sequence 1, Application US/09448378
Fatent No. US20020034517A1
GENERAL INFORMATION:
APPLICANT: Brack Kenneth
TITLE OF INVENTION: Dendritic Cell Stimulatory Factor
FILE REPRENCE: 2885-D
-CURRENT APPLICATION NUMBER: US/09/448,378
CURRENT APPLICATION NUMBER: US/09/448,378
NUMBER OF SEQ ID NOS: 2
SOFTWARE: Patentin version 3.0
SEQ ID NO: 1
LENGTH: 235
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COMPUTER: Apple Macintosh
OPERATING SYSTEM: Macintosh
OPERATING SYSTEM: Macintosh
OPERATING SYSTEM: Macintosh
OPERATING SYSTEM: Macintosh
TLONG SYSTEM: Macintosh
TLONG SYSTEM: Macintosh
APPLICATION NUMBER: US/09/983,806
FILING DATE: 25-OCT-2001
APPLICATION NUMBER: US/09/983,806
FILING DATE: 10-MAX-1993
APPLICATION NUMBER: US/08/44,626
APPLICATION NUMBER: US/08/162,407
FILING DATE: 03-DEC-1993
APPLICATION NUMBER: 08/106,463
FILING DATE: AUGUST 25, 1993
APPLICATION NUMBER: 08/106,463
FILING DATE: AUGUST 25, 1993
APPLICATION NUMBER: 08/06,463
FILING DATE: MAUGUST 25, 1993
APPLICATION NUMBER: 08/06,8394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%; Score 701; DB 9;
100.0%; Pred. No. 3.3e-74;
tive 0; Mismatches 0;
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REFERENCE/DOCKET NUMBER: 2813-C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATTORNEY/ACENT INFORMATION:
NAME: Malaska, Stephen L.
REGISTRATION NUMBER: 32,6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ZIP: 98101
COMPUTER READABLE FORM:
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STATE: Washington
COUNTRY: US
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Best Local Similarity 100.0
Matches 133; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: PRT
CRGANISM: Homo sapiens
US-09-448-378-1
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US-09-983-806-6
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Gaps

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Indels

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US-10-241-927-2

i Sequence 2, Application US/10241927;
Sequence 2, Application US/10241927;
Publication No. US20030113341A1
GENERAL INFORMATION:
APPLICANT: Lynch, David H.
APPLICANT: Berges, Luis
APPLICANT: Miller, Robert E.
APPLICANT: NUMBER: US 09/144,027
PRIOR APPLICATION NUMBER: US 09/154,903
PRIOR PLING DATE: 1999-11-09
PRIOR PLING DATE: 1999-10-04
PRIOR FILING DATE: 1995-10-04
PRIOR FILING DATE: 1995-10-04
NUMBER OF SEQ ID NOS: 2
SOFTWARE: Patentin version 3.1
SEQ ID NO 2
LENGTH: 235
THENDER OF SEQ ID NOS: 2
LENGTH: 235
THENDER OF SEQ ID NOS: 2
TENGTH: 235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61 TVAGSKMQGLLERVNTEIHFVTKCAFQPPSCLRFVQTNISRLLQETSEQLVALKPWITR 120
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 QDCSFQHSPISSDFAVKIRELSDYLLQDYPVTVASNLQDEELCGGLWRLVLAQRWMERLK
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100.0%; Score 701; DB 14;
Best Local Similarity 100.0%; Pred. No. 3.3e-74;
Matches 133; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 100.0%; Score 701; DB 13; Best Local Similarity 100.0%; Pred. No. 3.3e-74; Matches 133; Conservative 0; Mismatches 0;
FILING DATE: December 3, 1993
APPLICATION NUMBER: 08/111,758
FILING DATE: August 25, 1993
APPLICATION NUMBER: 08/106,463
FILING DATE: August 12, 1993
APPLICATION NUMBER: 08/068,394
FILING DATE: MAY 24, 1993
ATTORNEY/AGRY INFORMATION:
NAME: Malaska, Stephen L.
REGISTRATION NUMBER: 2813-C
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO: 6:
                                                                                                                                                                                                                                                                                                                                                                                      INFORMATION FOR SEQ ID NO: 6: SEQUENCE CHARACTERISTICS: LENGTH: 235 amino acids
                                                                                                                                                                                                                                                                                                                                                                 TELEFAX: (206) 233-0644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121 QNFSRCLELQCQP 133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          148 ONFSRCLELOCOP 160
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US-10-241-927-2
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                               APPLICANT: Lyman, Stewart D.
APPLICANT: Maraskvosky, Eugene
APPLICANT: Maraskvosky, Eugene
APPLICANT: Maraskvosky, Eugene
APPLICANT: Maraskvosky, Eugene
APPLICANT: Lyman, Hilary J.
APPLICANT: Lyman, David H.
TITLE OF INVENTION: THE USE OF FLT3-LIGAND IN THE TREATMENT OF INFECTION
FILE REFERENCE: 2836-H
CURRENT FILING DATE: 2002-09-11
PRIOR APPLICATION NUMBER: 10/241,927
PRIOR APPLICATION NUMBER: 09/444,027
PRIOR APPLICATION NUMBER: 09/444,027
PRIOR APPLICATION NUMBER: 09/154,903
PRIOR PILING DATE: 1998-09-17
PRIOR PILING DATE: 1998-09-17
PRIOR PILING DATE: 1998-09-17
PRIOR APPLICATION NUMBER: 08/539,142
PRIOR PILING DATE: 1995-10-04
NUMBER OF SEQ ID NOS: 2
SOFTWARE: PatentIn version 3.2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61 TVAGSKMQGLLERVNTEIHFVTKCAFQPPPSCLRFVQTNISRLLQETSEQLVALKPWITR 120
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Publication No. US2020160004A1
GENERAL INFORMATION:
TITLE OF INVENTION: Ligands for flt3/flk-2 Receptors
NUMBER OF SEQUENCES: 8
CORRESPONDENCE ADDRESS:
ADDRESSEE: Stephen L. Malaska, Immunex Corporation
STREET: 51 University Street
CITY: Seattle
STATE: Washington
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COMPUTER: Apple Macintosh
COMPUTER: Apple Macintosh
CORFATING SYSTEM: Macintosh 7.0.1
SOFFWARE: Microsoft Word, Version #5.1
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/095,449
FILING DATE: 13-Mar-2002
CLASSIFICATION: 530
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 100.0%; Score 701; DB 12; Best Local Similarity 100.0%; Pred. No. 3.3e-74; Matches 133; Conservative 0; Mismatches 0;
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FILING DATE: 24-JUN-1996
APPLICATION NUMBER: US/08/162,407
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ZIP: 98101
COMPUTER READABLE FORM:
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US-10-095-449-6
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61 TVAGSKWQGLLERVNTEIHFVTKCAFQPPFSCLRFVQTNISRLLQETSEQLVALKPWITR 120
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99.4%; Score 697; DB 9; Length 209;
Best Local Similarity 99.2%; Pred. No. 8.5e-74;
Matches 132; Conservative 0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 9, Application US/09904536;
Patent No. US20020111475A1
GENERAL INFORMATION:
APPLICANT: Graddis, Thomas J.
APPLICANT: MCZEW, Jeffrey T.
TITLE OF INVENTION: FLT3-L MUTANTS AND METHODS OF USE
FILE REFERENCE: 03260.0028;
CURRENT FILING DATE: 2001-07-16
PRIOR FILING DATE: 2001-07-16
PRIOR FILING DATE: 1999-07-02;
NUMBER OF SEQ ID NOS: 20;
SOFTWARE: PATENTIN Ver. 2.1;
SEQ ID NO
                                                                                                                                                                                                                                                                           Indels
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Best Local Similarity 100.0%; Pred. No. 3.3e-74;
Matches 133; Conservative 0; Mismatches 0;
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Patent No. US20020111475A1
GENERAL INFORMATION:
APPLICANT: Graddia, Thomas J.
APPLICANT: MCGYEW, Jeffrey T.
TITLE OF INVENTION: FLT3-L MUTANTS AND METHODS OF FILE REFERENCE: 03260.0028
                     NUMBER OF SEQ ID NOS: 4
SOFTWARE: Patentin version 3.1
SEQ ID NO 1
LENGTH: 235
PRIOR FILING DATE: 2002-11-19
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; ORGANISM: Homo sapiens
US-09-904-536-9
                                                                                                                              ; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-401-364-1
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Sequence 6, Application US/10314035
Sequence 6, Application US/10314035
Sequence 6, Application US/2030157069A1
GENERAL INFORMATION:
APPLICANT: LYMAN, Stewart D.
APPLICANT: BECKMANN, M. Patricia
TITLE OF INVENTION: METHODS OF USING FLT3-LIGAND IN HEMATOPOIETIC CELL TRANSPLANTATIC
FILE REFERENCE: 2813-P
CURRENT APPLICATION NUMBER: US 08/994,468
PRIOR APPLICATION NUMBER: US 08/994,468
PRIOR FILING DATE: 1995-05-19
PRIOR FILING DATE: 1994-05-11
PRIOR FILING DATE: 1994-05-11
SPRIOR FILING DATE: 1994-03-07
NUMBER OF SEQ ID NOS: 8
SOFTWARE: Patentin version 3.1
SEQ ID NO SE
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Publication No. US2004002760A1
GENERAL INFORMATION:
APPLICANT: McKenna, Hilary J.
APPLICANT: Missewski, David N.
APPLICANT: Maliazewski, Charles R.
TITLE OF INVENTION: METHODS OF USING FLT3-LIGAND IN IMMUNIZATION PROTOCOLS
FILE REPERBUCE: 3399-B
CURRENT APPLICATION NUMBER: US/10/401,364
CURRENT PILING DATE: 2003-03-26
PRIOR PILING DATE: 2002-03-26
PRIOR FILING DATE: 2002-03-26
PRIOR APPLICATION NUMBER: US 60/368,263
PRIOR APPLICATION NUMBER: US 60/427,835
                                                                                                                                 61 TVAGSKMOGLLERVNTEIHFVTKCAFOPPSCLRFVQTNISRLLQETSBOLVALKPWITR 120
                                                                                                                                                               88 TVAGSKAQGLLERVNTEIHFVTKCAFQPPPSCLRFVQTNISRLLQETSEQLVALKFWITR 147
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Best Local Similarity 100.0%; Pred. No. 3.3e-74;
Matches 133; Conservative 0; Mismatches 0; Indels 0
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US-10-314-035-6
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Pred. No. 8.5e-74;
1; Mismatches 0; Indels
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US-09-904-536-14

; Sequence 14, Application US/09904536
; Patent No. US20020111475A1
; GENERAL INFORMATION;
; APPLICANT: Graddis, Thomas J.
; APPLICANT: Graddis, Thomas J.
; TITLE OF INVENTION: FLT3-L MUTANTS AND METHODS OF USE FILE REFERENCE: 0260.0028
; CURRENT APPLICATION NUMBER: US/09/904,536
; CURRENT FILING DATE: 2001-07-16
; PRIOR PILICATION NUMBER: PRIOR APPLICATION: 09/109,100
; RICHARD PATE: 1999-07-02
; SOFTWARE: Patent IN Ver. 2.1
; SEQ ID NO 14
; LENGTH: 209
; TYPE: PRI
; CRGANISM: Homo sapiens
US-09-904-536-14
CURRENT APPLICATION NUMBER: US/09/904,536
CURRENT FILING DATE: 2001-07-16
PRIOR APPLICATION NUMBER: PRIOR APPLICATION: 09/109,100
PRIOR FILING DATE: 1999-07-02
NUMBER OF SEQ ID NOS: 20
NUMBER OF SEQ ID NOS: 2.1
SEQ ID NO 12
LENGTH: 209
TYPE: PRI
ORGANISM: Homo sapiens
US-09-904-536-12
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Job time : 27.7446 secs
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Best Local Similarity 99.2%;
Matches 132; Conservative
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61 TVAGSKWOGLLERVNTEIHFVTKCAFOPPSCLRFVOTNISRLLOETSEOLVALKPWITR 120
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Sequence 10, Application US/09109100C

Sequence 10, Application US/09109100C

GENERAL INFORMATION:

APPLICANT: Graddis, Thomas J.

APPLICANT: MOGREW, Jeffrey T.

TITLE OF INVENTION: FLT3-L MUTANTS AND METHODS OF USE

FILE REPERENCE: 09260.0028

CURRENT APPLICATION UNBER: US/09/109,100C

CURRENT FILING DATE: 1998-07-02

NUMBER OF SEQ ID NOS: 20

SOFTWARE: Patentin Ver. 2.1

SEQ ID NO 10
                                                                                                                                                                                                                                                                               Sequence 18, Application US/09109100C
| Patent No. 6291661
| GENERAL INFORMATION:
| APPLICANT: Graddis, Thomas J.
| APPLICANT: Graddis, Thomas J.
| TITLE OF INVENTION: FLT3-L MUTANTS AND METHODS OF USE;
| FILE REPERENCE: 03260.0028
| CURRENT PELING DATE: 1998-07-02
| NUMBER OF SEQ ID NOS: 20
| SOFTWARE: Patentin Ver. 2.1
| SEQ ID NO 1808: 20
| LENGTH: 209
US-08-243-545-2
US-08-93-962-2
US-08-669-692-2
US-08-669-692-2
PCT-US94-0536-2
PCT-US94-0536-6
US-09-101-10-19
US-09-101-10-19
US-09-411-527-31
US-09-411-527-31
US-09-411-527-26
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US-09-411-527-26
US-09-411-517-28
PCT-US94-05150-17
PCT-US94-05150-12
PCT-US94-05150-10
US-09-412-1294-61
US-09-413-11-28
PCT-US94-05150-10
US-09-413-11-28
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121 QNFSRCLELQCQP 133
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   231
231
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250
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276
872
228
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ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity
   RESULT 2
US-09-109-100-10
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                                                                                                                                        701
1 QDCSFQHSPISSDFAVKIRE.....LKPWITRQNFSRCLELQCQP 133
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                 sued Patents AA:*
/cgn2 6/ptodata2/jaa/5A_COMB.pep:*
/cgn2 6/ptodata2/jaa/5B_COMB.pep:*
/cgn2 6/ptodata2/jaa/6A_COMB.pep:*
/cgn2 6/ptodata2/jaa/6B_COMB.pep:*
/cgn2 6/ptodata2/jiaa/PCTUS_COMB.pep:*
/cgn2 6/ptodata2/jiaa/PCTUS_COMB.pep:*
/cgn2 6/ptodata2/jiaa/packfles1.pep:*
                GenCore version 5.1.6
(c) 1993 - 2004 Compugen Ltd.
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US-08-243-540-10
US-08-243-540-10
US-08-293-962-6
US-09-109-100-10
US-08-69-692-6
US-08-69-692-6
US-09-109-100-10
US-09-109-100-10
US-09-109-100-10
US-09-109-100-11
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US-09-109-100-13
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-09-109-100-16
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                                                                                                                                                                                                            389414 segs, 51625971 residues
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                                                                                                                                                                                                                                                                                     Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
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                                                             - protein search, using sw model
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Gapop 10.0 , Gapext 0.5
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Maximum DB seq length: 200000000
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Match Length DB
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Perfect score:
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61 TVAGSKMQGLLERVNTEIHFVTKCAFQPPSCLRFVQTNISRLLQFTSEQLVALKPWITR 120
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                                                                                                                                                                                                                                                             1 ODCSFOHSPISSDFAVKIRELSDYLLQDYPVTVASNLQDEELCGGLWRLVLAQRWMERLK
                                                                                                                                                                                           :
0
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100.0%; Score 701; DB 1; Length 235;
Best Local Similarity 100.0%; Pred. No. 6.6e-80;
Matches 133; Conservative 0; Mismatches 0; Indels
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Sequence 6, Application US/08993962

Sequence 6, Application US/08993962

Patent No. 5843423

GENERAL INFORMATION:

APPLICANT: Lyman, Stewart D.

APPLICANT: Beckmann, M. Patricia

TITLE OF INVENTION: Ligands for filt3/flk-2 Receptors

NUMBER OF SEQUENCES:

ADDRESSEE: Stephen L. Malaska, Immunex Corporation

STREET: 51 University Street

CITY: Seatls

STATE: Washington

STATE: Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COUNTRY: US

ZIP: 98101
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: Apple Macintosh
OPERATING SYSTEM: Macintosh 7.0.1
SOFTWARE: Microsoft Word, Version #5.1
CURSENT APPLICATION DATA:
APPLICATION NUMBER: US/08/993,962
FILING DATE: December 18, 1997
CLASSIFICATION NUMBER: US/08/162,407
FILING DATE: December 3, 1993
APPLICATION NUMBER: US/08/162,407
FILING DATE: August 25, 1993
CLASSIFICATION: 424
PRIOR APPLICATION: 424
PRIOR APPLICATION: 424
PRIOR APPLICATION NUMBER: 08/106,463
FILING DATE: August 12, 1993
CLASSIFICATION NUMBER: 08/068,394
FILING DATE: May 24, 1993
CLASSIFICATION: 424
PRIOR APPLICATION: 424
ATTORNEY/GENT INFORMATION:
APPLICATION NUMBER: 32,655
RESERRENCE/DOCKET NUMBER: 2813-C
TELECOMMUNICATION INFORMATION:
TELEPHONE: (206) 587-0430
TELEFRAX: (206) 233-0644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LENGTH: 235 amino acids TYPE: amino acid
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TELEX: 756822
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-243-545-6
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                                                                                                                                                                                                                                                                                                    1 ODCSFQHSPISSDFAVKIRELSDYLLQDYPVTVASNLQDEELCGGLWRLVLAQRWMERLK 60
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                                                                                                                                                                      Query Match
100.0%; Score 701; DB 3; Length 212;
Best Local Similarity 100.0%; Pred. No. 5.7e-80;
Matches 133; Conservative 0; Mismatches 0; Indels C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Lyman, Steart D.
APPLICANT: Beckmann, M. Patricia
TITLE OF INTENTION: Ligande for fit3/flk-2 Receptors
NUMBER OF SEQUENCES: Stephen L. Malaska, Immunex Corporation
STREET: 51 University Street
CITY: Seattle Abple Macintosh
COMPUTRY: US
STATE: Washington
COMPUTRY: US
STATE: Washington
COMPUTRY: OS
APPLICATION DATA:
APPLICATION DATA:
APPLICATION NUMBER: US 08/162,407
FILING DATE: 11-MAY-1994
CLASSIPICATION NUMBER: US 08/162,407
FILING DATE: ADDEC-1993
CLASSIPICATION NUMBER: 08/16,463
FILING DATE: MAY 24, 1993
CLASSIPICATION NUMBER: 32,655
FRICK APPLICATION NUMBER: 32,655
FRICK APPLICATION NUMBER: 32,655
FRIENCR APPLICATION NUMBER: 32,65
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Patent No. 5554512
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INFORMATION FOR SEQ ID NO: 6:
SEQUENCE CHARACTERISTICS:
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             ) LENGTH: 212

) TYPE: PRT

; ORGANISM: Homo sapiens

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Best Local Similarity 100.0
Matches 133; Conservative
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LENGTH: 235
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                                                                                                          Gaps
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                                                                  Length 235;
                                                                                                        0; Indels
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APPLICANT: Lyman, Stewart D.
APPLICANT: Lowers, M. Patricia
APPLICANT: Beckmann, M. Patricia
TITLE OF INVENTION: Ligands for fll3/flk-2 Receptors
NUMBER OF SEQUENCES: 8
CORRESPONDENCE ADDRESS:
ADDRESSEE: Stephen L. Malaska, Immunex Corporation-
STREET: 51 University Street
CITY: Seatile
                                                              ; Score 701; DB 2;
; Pred. No. 6.6e-80;
0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ZIF: 98101
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: Apple Macintosh
OPERATING SYSTEM: Macintosh 7.0.1
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/160,841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CLASSIFICATION:
PRICK APPLICATION DATA:
APPLICATION UNDRER:
APPLICATION NUMBER: 08/111,758
FILING DATE: August 25, 1993
PRICK APPLICATION NUMBER: 08/106,463
FILING DATE: August 12, 1993
PRICK APPLICATION NUMBER: 08/106,463
FILING DATE: August 12, 1993
PRICK APPLICATION NUMBER: 08/106,463
FILING DATE: May 24, 1993
ATTORNEY AGENT: MAY 24, 1993
ATTORNEY AGENT: NEVERMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME: Malaaka, Stephen L.
REGISTRATION NUMBER: 32,655
REFERENCE/DOCKET NUMBER: 2813-C
TELECOMMUNICATION INFORMATION:
TELEPHONE: (206) 587-0430
TELEFAX: (206) 233-0644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 6, Application US/09160841 Patent No. 6190655
                                                                  Ouery Match
Best Local Similarity 100.0%;
Matches 133; Conservative 0.
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amino acid
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TELEX: 756822
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 , MOLECULE TYPE: protein US-09-160-841-6
           ; MOLECULE TYPE: protein US-08-993-962-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE
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STATE: Wa
COUNTRY:
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US-09-160-841-6
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Length 235;

DB 3;

100.0%; Score 701;

Query Match

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                                                                                                                                                                               61 TVAGSKNOGLLERVNTEIHFVTKCAFOPPSCLRFVQTNISRLLQETSEQLVALKPWITR 120
                                                                                                                                                                                                                            88 TVAGSKMOGLLERVNTEIHFVTKCAFOPPSCLRFVOTNISRLLOETSBOLVALKPWITR 147
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                                                                                                                 28 ÓDCSFÓHSPÍSSDFAVKIRELSDYLLQDYPVTVASNLQDBELCGGLWRLVLAQRWFEK 87
                                                                      1 QDCSFQHSPISSDFAVKIRELSDYLLQDYPVTVASNLQDEELCGGLWRLVLAQRWMERLK
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Sequence 1, Application US/09109100C

Sequence 1, Application US/09109100C

Setent No. 6291661;

APPLICANT: Graddis, Thomas J.

APPLICANT: McGrew, Jeffrey T.

TITLE OF INVENTION: FLI3-L MUTANTS AND METHODS OF USE

FILE REFERENCE: 03260.0028

CURRENT APPLICATION NUMBER: US/09/109,100C

CURRENT FILING DATE: 1998-07-02

NUMBER OF SEQ ID NOS: 20

SOFTWARE: Patentin Ver. 2.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 6, Application US/08669692

Patent No. 6630143

GENERAL INFORMATION:
APPLICANT: Lyman Stewart D.
APPLICANT: Beckmann, M. Patricia
TITLE OF INVENTION: Ligands for flt3/flk-2 Receptors
NUMBER OF SEQUENCES: 8
CORRESPONDENCE ADDRESS:
ADDRESSEE: Stephen L. Malaska, Immunex Corporation
STREET: 51 University Street
100.0%; Pred. No. 6.6e-80; tive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match

100.0%; Score 701; DB 3;

Best Local Similarity 100.0%; Pred. No. 6.6e-80;

Matches 133; Conservative 0; Mismatches 0;
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Microsoft Word, Version #5.1
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COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: Apple Macintosh
OPERATING SYSTEM: Macinto
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121 ONFSRCLELOCOP 133
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CITY: Seattle
STATE: Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE:
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61 TVAGSKWQGLLERVNTEIHFVTKCAFQPPSCLRFVQTNISRLLQETSEQLVALKPWITR 120
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100.0%; Score 701; DB 4; Length 235;
Best Local Similarity 100.0%; Pred. No. 6.6e-80;
Matches 133; Conservative 0; Mismatches 0; Indels
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GENERAL INFORMATION:
APPLICANT: Lyman, Stewart D.
APPLICANT: Lyman, M. Patricia
TITLE OF INVENTION: Ligands for flt3/flk-2 Receptors
NUMBER OF SEQUENCES: 8
CORRESPONDENCE ADDRESS:
ADDRESSEE: Stephen L. Malaska, Immunex Corporation
STREET: 51 University Street
CITY: Seattle
STATE: Washington
COUNTRY: US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US94/05365
FILING DATE: May 24, 1994
CLASSIFICATION: 530

PRIOR APPLICATION NUMBER: US 08/162,407

RILING DATE: 03-DEC-1993

APPLICATION NUMBER: 08/111,758

FILING DATE: AUGUST 25, 1993

PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/106,463

FILING DATE: AUGUST 12, 1993

CLASSIFICATION S30

PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/06,394

FILING DATE: May 24, 1993

CLASSIFICATION: S30

ATTORNEY/AGENT INFORMATION:
NAME: Malaska, Stephen L.
REGISTRATION NUMBER: 32,655

RETERENCE/DCCKET NUMBER: 2813-C

TELERPONE: (206) 233-0644
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COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIN Release #1.0. V
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amino acid
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TELEX: 756822
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TOPOLOGY:
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100.0%; Score 701; DB 4; Length 235;
Best Local Similarity 100.0%; Pred. No. 6.6e-80;
Matches 133; Conservative 0; Mismatches 0; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 2, Application US/08444626
Sequence 5. Application US/08444626
Patent No. 6632424
GENERAL INFORMATION:
APPLICANT: Eschmann, Stewart D. APPLICANT: Beckmann, M. Patricia APPLICANT: Beckmann, M. Patricia TITLE OF INVENTION: Ligands for flt3/flk-2 Receptors NUMBER OF SEQUENCES: 8
CORRESPONDENCE ADDRESS: ADDRESSEE: Stephen L. Malaska, Immunex Corporation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READBLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: Apple Macintosh
OPERATING SYSTEM: Macintosh 7.0.1
SOFTWARE: Microsoft Word, Version #5.1
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/444,626
FILING DATE: 19-MAY-1995
    CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/669,692
FILING DATE: 24-UN-1996
CLASSIFICATION: 530
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/08/162,407
FILING DATE: December 3, 1993
APPLICATION NUMBER: 08/111,758
FILING DATE: August 25, 1993
PRIOR APPLICATION NUMBER: 08/106,463
FILING DATE: August 12, 1993
FILING DATE: August 12, 1993
FILING DATE: MAY 24, 1993
CLASSIFICATION NUMBER: 08/068,394
FILING DATE: MAY 24, 1993
CLASSIFICATION NUMBER: 330
ATTORNEY/AGENT INFORMATION:
NAME: MALASKA 24, 1993
CLASSIFICATION NUMBER: 32,655
REFERENCE/DOCKET NUMBER: 2813-C
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELEFAX: (206) 233-0644
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TELEFAX: (200,
TELEEX: 756822
INFORMATION FOR SEQ ID NO: 6:
SEQUENCE CHARACTERISTICS:
LENGTH: 235 amino acids
TVPE: amino acids
TVPE: amino acids
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MOLECULE TYPE: protein
US-08-669-692-6
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61 TVAGSKMQGLLERVNTEIHFVTKCAFQPPPSCLRFVQTNISRLLQETSEQLVALKPWITR 120
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                                                                                                  1 QDCSFQHSP1SSDFAVKIRELSDYLLQDYPVTVASNLQDEELCGGLWRLVLAQRWMERLK 60
                                                                                                                                      2 QDCSFQHSPISSDFAVKIRELSDYLLQDYPVTVASNLQDEELCGGLWRLVLAQRWMERLK 61
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                                                            Gaps
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            Score 697; DB 3; Length 209;
Pred. No. 1.8e-79;
0; Mismatches 1; Indels
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APPLICANT: Graddis, Thomas J.
APPLICANT: Graddis, Thomas J.
APPLICANT: Graddis, Thomas J.
TILLE OF INVENTION: FLT3-L MUTANTS AND METHODS OF USE
TILE REPERENCE: 03260.0028
CURRENT APPLICATION NUMBER: US/09/109,100C
CURRENT FILIAG DATE: 1998-07-02
NUMBER OF SEQ ID NOS: 20
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 12
LENGTH: 209
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APPLICANT: Graddis, Thomas J.

APPLICANT: Graddis, Thomas J.

APPLICANT: McGrew, Jeffrey T.

TITLE OF INVENTION: FLT3-L MUTANTS AND METHODS OF USE FILE REFERENCE: 03260.0028

CURRENT APPLICATION NUMBER: US/09/109,100C

CURRENT FILING DATE: 1998-07-02

NUMBER OF SEG ID NOS: 20

SOFTWARE: Patentin Ver. 2.1
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Pred. No. 1.8e-79;
0; Mismatches 1;
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Patent No. 6291661
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              99.4%;
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Best Local Similarity 99.2
Matches 132; Conservative
              Query Match
Best Local Similarity 99.2
Matches 132; Conservative
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CRGANISM: Homo sapiens
US-09-109-100-14
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ORGANISM: Homo sapiens
US-09-109-100-12
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US-09-109-100-12
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) Squence 9, Application US/09109100C
) Patent No. 6291661
) GENERAL INFORMATION:
APPLICANT: Graddis 1.
TILLE OF INVENTION:
TILLE OF INVENTION:
CURRENT APPLICATION NUMBER: US/09/109,100C
) CURRENT FILING DATE: 1998-07-02
) NUMBER OF SEQ ID NOS: 20
) SOFTWARE: PatentIN Ver. 2.1
) SEQ ID NO 9

LENGTH: 209
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Best Local Similarity 100.0%; Pred. No. 6.6
Matches 133; Conservative 0; Mismatches
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RAGISTRATION NUMBER: 32,655
REPERBINGFOCKET NUMBER: 2813-B
TELECOMMUNIC/CATION INFORMATION:
TELEPHONE: (206) 587-0430
TELEFAX: (206) 233-0644
                                                                                                                          PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/162/407
FILING DATE: December 3, 1993
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION OWBER: 08/111,758
FILING DATE: August 25, 1993
CLASSIFICATION:
                   CLASSIFICATION:
PAIDR APPLICATION DATA:
APPLICATION NUMBER: 08/209,502
FILING DATE: March 7, 1994
                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/106,463
FILING DATE: August 12, 1993
CLASSIFICATION:
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APPLICATION NUMBER: 08/06
FILING DATE: May 24, 1993
CLASSIFICATION:
May 11, 1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATTORNEY/AGENT INFORMATION:
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amino acid
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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CORGANISM: Homo sapiens
US-09-109-100-9
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US-09-109-100-9
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                                                                                                                                                                     61 TVAGSKMOGLLERVNTEIHFVTKCAFQPPPSCLRFVQTNISRLLQETSEQLVALKPWITR 120
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    Length 209;
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                                            0; Indels
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APPLICANT: Graddis, Thomas J.
APPLICANT: Graddis, Jeffrey T.
TITLE OF INVENTION: FLIT3-L MUTANTS AND METHODS OF USE
FILE REFERENCE: 02560.0028
CURRENT APPLICATION NUMBER: US/09/109,100C
CURRENT FILING DATE: 1998-07-02
NUMBER OF SEQ ID NOS: 20
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Graddis, Thomas J.
APPLICANT: Graddis, Thomas J.
APPLICANT: MGGEW, Jeffrey T.
TITLE OF INVENTION: FLT3-1 MUTANTS AND METHODS OF USE
FILE REFERENCE: 03260.0028
FILE REFERENCE: 03260.0028
CURRENT APPLICATION NUMBER: US/09/109,100C
CURRENT FILING DATE: 1998-07-02
NUMBER OF SEQ ID NOS: 20
SOFTWARE: PATENTIN Ver. 2.1
SEQ ID NO II.
SEQ ID NO II.
Score 697; DB 3;
Pred. No. 1.8e-79;
1; Mismatches 0;
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GENERAL INFORMATION:
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Sequence 17, Application US/09109100C
Patent No. 629161
GENERAL INFORMATION:
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ilarity 99.2%;
Conservative
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ORGANISM: Homo sapiens
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CRGANISM: Homo sapiens
US-09-109-100-17
    Query Match
Best Local Similarity
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                                                                                                                                                                             61 TVAGSKMOGLLERVNTEIHFVTKCAFOPPSCLRFVQTNISRLLQETSEQLVALKPWITR 120
                                                                                                                                                                                                                       62 TVAGSKWQGLLERVNTEIHFVTKCAFQPPPSCLRFVQTNISRLLGETSEQLVALKFWITR 121
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| Sequence 15, Application US/09109100C
| Patent No. 6291661
| GENERAL INFORMATION:
| APPLICANT: MCGREW, Jeffrey T.
| TILLE OF INVENTION: FLT3-L MUTANTS AND METHODS OF USE
| TILLE OF INVENTION: FLT3-L MUTANTS AND METHODS OF USE
| TILLE OF INVENTION: FLT3-L MUTANTS AND METHODS OF USE
| CURRENT APPLICATION NUMBER: US/09/109,100C
| CURRENT FILING DATE: 1998-07-02
| NUMBER OF SEQ 1D NOS: 20
| SOFTWARE: PATENTIN VET: 2.1
| SEQ 1D NO 15
99.2%; Pred. No. 3.2e-79;
tive 1; Mismatches 0;
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Pred, No. 3.2e-79;
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Best Local Similarity 99.2
Matches 132; Conservative
Best Local Similarity 99.2
Matches 132; Conservative
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